Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

by
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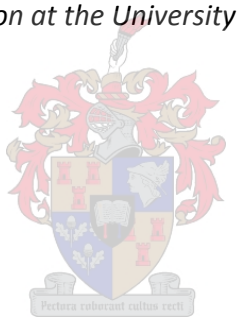

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

Background: South Africa has committed to progressively realise the fundamental right to adequate food for all by ratifying the International Covenant of Economic, Social and Cultural Rights and other related instruments. Despite this, 26% of the country's-, and 36% of the Eastern Cape's population remain food insecure, especially in rural areas. Women and children are most at risk and children's health is most vulnerable to food insecurity's effects. This study aimed to assess if the right to adequate food was realised by children and primary caregivers residing in urban and rural areas of the Blue Crane Route in the Cacadu District in the Eastern Cape, and what still needed to be done to fully realise this right.

Methods: A cross-sectional, descriptive study with an analytical component using a mixed methods approach was conducted. In-depth key informant interviews examined the perceptions of key role-players who filled prominent positions in the community. Interviewer-administered primary caregiver questionnaires investigated the reality of the situation. Urban caregiver questionnaires were conducted at clinics in Somerset East, Pearston and Cookhouse, and mobile clinics were used for rural participants. Quantitative data was summarised in frequency tables and histograms to describe the variables. To test for significance $p<0.05$ was used. Qualitative data was coded and emerging themes were reported to contextualise the findings.

Results: Of the 161 caregivers whom participated in the study, 77% experienced risk for- or food insecurity at some point in the past month. Households reported a shortage of food for 2.5 months in the past year and a third had poor dietary diversity. Coping mechanisms, such as purchasing food on credit had to be implemented by caregivers. Caregivers were more likely to go hungry than their children, and although not significant, urban participants were more food secure than their rural counterparts. Significant differences in food security levels were found for household income and ethnicity. Poor living conditions, gender discrimination, poor implementation of policies and programmes, including social grants, a lack of employment opportunities and inadequate agrarian practices were identified as capacity gaps of the State inhibiting the realisation of the right. The Child Support Grant and the National School Nutrition Programme were identified as protective factors. Caregivers (rights-holders) felt disempowered to improve their situation themselves without assistance from the State (duty-bearer). Interviews were conducted with 11 key informants who suggested that rights-holders needed to take responsibility, although they did acknowledge that the State was not implementing policies adequately to support the rights-holders.

Conclusions: The right to adequate food is not fully realised by all in the Blue Crane Route. Efforts are being made to improve it, but they are not optimal. Concerted, multi-disciplinary approaches using a rights-based approach to implement policies and programmes are needed

together with the empowerment of the community with the necessary skills to accept responsibility and make changes. On-going monitoring, evaluation and reassessment of programmes must take place to ensure efforts are effective at achieving the goal of realising the right to adequate food for all in a sustainable manner.

OPSOMMING

Agtergrond: Deur die bekragtiging van die Internasionale Verdrag van Ekonomiese, Sosiale en Kulturele Regte en ander verwante instrumente is Suid-Afrika verbind om die fundamentele reg op voldoende voedsel progressief te verwesenlik vir alle individue. Desnieteenstaande, beleef 26% van die land en 36% van die Oos-Kaap se bevolking voedelonsekerheid, veral in landelike gebiede. Vroue en kinders het die grootste risiko en kinders se gesondheid is die kwesbaarste vir die gevolge van voedelonsekerheid. Hierdie studie poog om te bepaal of die reg op voldoende voedsel verwesentlik is vir kinders en primêre versorgers wat in die stedelike en landelike gebiede van die Bloukraanroete-streek van die Cacadu-distrik in die Oos-Kaap woon, en wat verder gedoen moet word om hierdie reg ten volle te verwesenlik.

Metodes: 'n Deursnit, beskrywende studie met 'n analitiese komponent is uitgevoer en ‘n gemengde metodes benadering is gebruik. In-diepte onderhoude met sentrale persone wat prominente posisies in die gemeenskaps beklee is gebruik om die persepsies van rolspelers in die gemeenskap te ondersoek. Onderhoudvoerder geadministreerde vraelyste is gestel aan primêre versorgers om die werklikheid van die situasie te ondersoek. Stedelike versorgers se vraelyste is voltooi by klinieke in Somerset-Oos, Pearston en Cookhouse terwyl mobiele klinieke gebruik is vir landelike deelnemers. Kwantitatiewe data is opgesom in frekwensietabelle en histogramme om die veranderlikes te beskryf. Om te toets vir beduidendheid, is $p < 0.05$ gebruik. Kwalitatiewe data is gekodeer en herhalende temas is gerapporteer om die bevindings te kontekstualiseer.

Resultate: Van die 161 versorger deelnemers, het 77% die risiko vir- of voedselonsekerheid op 'n sekere tydstip gedurende die afgelope maand ervaar. Huishoudings het 'n tekort aan voedsel rapporteer vir 2.5 maande in die afgelope jaar en 'n derde het swak dieetdiversiteit gemeld. Hanteringsmeganismes, soos kredietaankope van voedsel, moes implementeer word. Versorgers was meer geneig om honger te ly as hul kinders, en hoewel nie beduidend nie, was stedelike deelnemers meer voedselveilig as hul landelike eweknieë. Beduidende verskille in voedselsekuriteit-vlakke is vir huishoudelike inkomste en etnisiteit gevind. Swak lewensomstandighede, geslagsdiskriminasie, swak implementering van beleide en programme, insluitend maatskaplike toelaes, en 'n gebrek aan werks- en landbougeleenthede, is geidentifiseer as leemtes in die Staat se kapasiteit, wat verwesenliking van die reg terughou. Kindertoelae en die Nasionale Skoolvoedingsprogram is as beskermende faktore geidentifiseer. Versorgers (regtehouers) het nie toegerus gevoel om sonder die Staat (pligtedraers) se hulp hul situasie te verbeter nie. Elf sentrale rolspelers, het ondehoude toegestaan en voorgestel dat regtehouers self verantwoordelikheid moet neem, alhoewel hulle erken het dat die Staat nie beleide genoegsaam implementeer om die regtehouers te ondersteun nie.

Gevolgtrekkings: Die reg op voldoende voedsel word nie ten volle verwesenlik in die Bloukraanroete-streek nie. Pogings word aangewend om die verwesentliking te verbeter, maar dis nie optimaal nie. Daadwerklike multi-dissiplinêre benaderings, wat gebruik maak van ‘n regte-gebaseerde benadering om beleide en programme te implementeer word benodig, ook om die gemeenskap te bemagtig met die nodige vaardighede om eie verantwoordelikheid te aanvaar en veranderings te maak. Deurlopende monitering, evaluering en herevaluering van programme moet plaasvind om te verseker dat pogings effektief is om die doelwit te bereik, om die reg op voldoende voedsel vir almal op 'n volhoubare wyse te verwesenlik.

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CONTRIBUTIONS BY THE PRINCIPAL RESEARCHER AND FELLOW RESEARCHERS

The principal researcher (Ms Tamryn Jenkings) developed the idea and the protocol. The principal researcher planned the research, undertook data collection (with the assistance of a research assistant), captured the data for analysis, analysed the data with the assistance of Prof Daan Nel and Ms Tonya Esterhuizen (statisticians), interpreted the data and drafted the thesis. Mrs Maritha Marais and Mrs Elisna Lessing (supervisors) provided input at all stages and revised the protocol and the thesis.

EDITING

This thesis was edited by Dr Suzaan Le Roux to improve the accuracy of the language, the structure and style of the document, the overall readability, as well as the spelling, punctuation and grammar of the document.

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i. Acronyms

Acronym	Full Phrase
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEO	Chief Executive Officer
CCHIP	Community Childhood Hunger Identification Project
CRC	Convention of the Rights of the Child
FAO	Food and Agriculture Organisation
HIV/AIDS	Human immunodeficiency virus / Acquired Immunodeficiency Syndrome
ICESCR	International Covenant of Economic, Social and Cultural Rights
IFPRI	International Food Policy Research Institute
INP	Integrated Nutrition Programme
MDG	Millennium Development Goal
NFCS	National Food Consumption Survey
SANHANES-1	South African National Health and Nutrition Examination Survey
SA	South Africa
SASSA	South African Social Security Agency
UNICEF	United Nations Children's Fund
WHO	World Health Organisation

ii. Definitions

This section defines terms that are central to this study.

Word / Phrase	Definition
Care dependency grant	A care dependency grant is a grant awarded by the State to a primary caregiver for a child under the age of 18 years who is suffering from a permanent, severe disability. Qualifying criteria are applied before the grant is awarded.[1]
Child support grant	A child support grant is a cash transfer from the State paid monthly to a qualifying primary caregiver for children up to the age of 18 years, to supplement household income. Qualifying criteria, such as living in poverty, are applied to ensure that targeted beneficiaries are reached.[1]
Content validity	Content validity is met if all the elements of a specific concept or variable have been accounted for and investigated.[2]
Cross-sectional, descriptive study with an analytical component	A cross-sectional, descriptive study investigates the prevalence of a condition in two groups and describes characteristics of the group. When the study has an analytical component, then certain aspects are analysed to find causes and risk factors.[2]
Dietary diversity score	The dietary diversity score measures the average number of food groups consumed in the past 24 hours (from a total of 12 possible food groups) to identify how diverse the diet is.[3]
Disability grant	A disability grant is a grant awarded by the State to an adult who is suffering from a disability. Qualifying criteria are applied before the grant is awarded.[1]

Duty-bearer	The duty-bearer has a responsibility to ensure a right is realised. Normally the duty-bearer is the State, but it can also be a non-State actor.[4]
Face validity	Face validity is met when a question or measure makes sense to experts in the field that is being researched or to people familiar with the participants' culture and language.[2]
Food security	Food security is defined by the Food and Agriculture Organisation as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".[5]
Food and nutrition security	Food and nutrition security is defined by the United Nations Standing Committee on Nutrition as existing when "All people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life."[6]
Foster care grant	A foster care grant is a grant awarded by the State to a foster parent for the care of a foster child. Qualifying criteria are applied before the grant is awarded.[1]
Fundamental human right	Fundamental human rights are rights people are entitled to, because they are human beings.[7]
Gini index	The Gini index is a measure used to determine the level of inequality within a country.[8]
Human development index	The human development index combines educational level, income and life expectancy as a way to measure human development.[9]
Human-rights based approach	A human-rights based approach uses human rights and their principles as the basis for how to approach a situation. They are incorporated practically by using guidelines from international human rights law, international and regional human rights instruments, as well as general comments.[10]
In-depth interview	An in-depth interview is an interview that is conducted by an interviewer to find out the perceptions and opinions of the interviewee about a research topic. A discussion guide is followed; however, the interviewer may deviate from the discussion guide depending on how the interviewee responds to questions.[2]
Nutrition transition	The nutrition transition is a change in dietary intake patterns and nutrient consumption of a population due to a change in lifestyle, because of urbanisation and acculturation as a result of economic and social development.[11]
Old age grant	An old age grant is a grant awarded by the State to a person over the age of 60 as a pension. Qualifying criteria are applied before the grant is awarded.[1]
Pilot study	A pilot study is a small study that is done before the main study to test parts of the study design.[2]

Primary caregiver	For this study the definition of the primary caregiver is the person who is mainly responsible for the upbringing and care of the child. The primary caregiver lives with the child. If the mother lives with the child, she is usually the primary caregiver; however, a father, grandparent or guardian can also be a primary caregiver.
Qualitative research methods	Qualitative research methods consist mostly of descriptions of places and people, and of conversations. These research methods allow for an understanding of how research subjects perceive their context and role within their situation.[2]
Random sampling	Random sampling is a sampling technique used to ensure that a study sample is representative of the study population. The researcher controls the sampling process; however, the researcher has no control over exactly which individuals are selected as the study sample (they are included by chance).[2]
Reliability	Reliability (otherwise known as precision) indicates the degree of similarity of results when a measurement is repeated on the same subject. A measurement instrument is reliable if the same result is obtained each time from the same subject.[2]
Right to adequate food	According to General Comment 12 of the Committee on Economic, Social and Cultural Rights,[12] "the right to adequate food is realised when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement". This implies "the availability of food in a quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture", as well as "the accessibility of such foods in ways that are sustainable and that do not interfere with the enjoyment of other human rights".
Rural	According to Statistics South Africa,[13] rural areas include farms and traditional areas that characteristically have low population densities, low levels of infrastructure and low levels of economic activity. A rural settlement includes any area that is not classified as urban.
Study population	The study population is the entire group of people that the study aims to gather information from and draw conclusions about.[2]
Study sample	The study sample is the group of participants selected (either randomly or otherwise) to participate in a study. They are selected from the study population. For descriptive and cross-sectional studies the study sample should be representative of the study population.[2]
Stunting	Stunting refers to a height-for-age below minus two standard deviations from the median height-for-age of the reference population.[14]
Underweight	Underweight refers to a weight-for-age below minus two standard deviations from the median weight-for-age of the reference population.[14]
Urban	According to Statistics South Africa,[13] urban areas are continuously built-up areas that include cities, towns, townships and suburbs. Urban settlements refer to both formal and informal settlements that are found in cities and towns and are characterised by higher population densities, higher levels of economic activities and higher levels of infrastructure.

Validity	Validity indicates to how close a measurement comes to the truth. It is the extent to which a measurement instrument measures what it is supposed to measure.[2]
Wasting	Wasting refers to a weight-for-height below minus two standard deviations from the median weight-for-height of the reference population.[14]
Z-scores	According to the World Health Organisation,[15] Z-scores are used to indicate weight-for-age, height-for-age and weight-for-height where 95% of the population is centrally distributed between the -2 and +2 z-score lines.

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Chapter 1: Literature Review

1.1 Introduction

This literature overview aims to investigate the information that is available on the topic of the right to food, and in particular the realisation of this right for children and their primary caregivers living in South Africa.

It begins by examining what the worldwide state of food security is, as well as the international theory regarding the right to food. It then focuses on the situation regarding the realisation of the right to food in Sub-Saharan Africa and South Africa. After this the food and nutrition security situation in South Africa and in the Eastern Cape is examined, and then factors affecting the nutritional status and food security of children in South Africa are looked at. This is followed by a section comparing the nutritional status of urban and rural communities within South Africa. Coping strategies used to deal with food insecurity within South Africa are explored, and thereafter an assessment of nutrition intervention programmes aimed at children in South Africa is carried out. The overview ends by investigating how a rights-based approach can improve the realisation of the right to food.

1.2 The principles and definitions of the right to food approach

The right to food was recognised and started to be defined worldwide as a fundamental human right on the 3rd of January 1976 when the United Nation's International Covenant of Economic, Social and Cultural Rights (ICESCR) came into force. According to article 11 of the ICESCR,[16] the covenant recognises "…the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions". It recognises that everyone has a fundamental human right to be free from hunger and that State parties have an obligation to take appropriate steps to realise this right.

In 1999, the Committee on Economic, Social and Cultural Rights developed General Comment 12 on the right to adequate food, which explores article 11 further. Here the definition of how the right to food is realised was formulated as: "The right to adequate food is realised when every man, women and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement." According to the Committee,[12] the core content of the right to adequate food implies "the availability of food in a quantity and quality

sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture", as well as "the accessibility of such foods in ways that are sustainable and that do not interfere with the enjoyment of other human rights". Food security is defined by the FAO[5] as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".

General Comment 12 recommended that state parties should progressively realise the right to adequate food. The obligation is on the state to move as fast as possible towards achieving this goal. The state is defined as the duty-bearer (the entity or person responsible for the realisation of a right) who should enable the right-holders (the community or person entitled to the right) to realise their right to adequate food by respecting, protecting and fulfilling the right. What this means is that by **respecting** the right, the state is required to not take any measures that will prevent the realisation of the right, and by **protecting** it the state is required to ensure that individuals are not deprived of their right to adequate food by other individuals or enterprises. The obligation to **fulfil** has two prongs, namely facilitate and provide. **Facilitate** refers to the state pro-actively taking steps to improve access to and the utilisation of resources and means to improve livelihoods, as well as food security of the people. The state is obligated to **provide** food directly when vulnerable population groups are unable to realise the right by their own means.[12]

A framework, developed by Kent in 2007, known as the nested rings of responsibility, has been used to illustrate the different levels of duty-bearers who contribute to realising the rights of the child. This framework can also be applied to other human rights, such as the right to adequate food (figure 1.1).[17]

Figure 1.1: Nested rings of responsibility[17]

It recognises that the state is not the only duty-bearer. Rather, there are many levels of responsible duty-bearers, starting from the family who are immediately responsible to ensure that their child has enough to eat, and then spreads out to the wider community if the family is unwilling or unable to ensure that the child's right to adequate food is realised. The rings spread further and further outwards, to the local municipality, the provincial government, the state government and eventually the international governing agencies. If the inner rings fail to meet their responsibilities as duty-bearers, the outer rings need to fulfil the role. As stated in the guidelines for the framework "where there has been a failure in the inner rings of responsibility and no one else takes care of the problem, government must step up". This framework recognises that all levels of duty-bearers have responsibilities all of the time, need assistance and co-operation from each other, and are interdependent on each other. The outer rings should be empowering the inner rings to be able to perform their function as duty-bearer effectively.[17]

Article 24 of the Convention of the Rights of the Child (CRC)[18] recognised that provision of adequate nutritious food should be made specifically for children. Furthermore, General Recommendation number 24 of the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) states that "the full realisation of women's right to health

can be achieved only when State parties fulfil their obligation to respect, protect and promote women's fundamental human right to nutritional well-being by means of a food supply that is safe, nutritious and adapted to local conditions."[19] Universally, the right to adequate food and nutrition security is acknowledged in many legally binding documents, however, discrimination of the realisation of this right is still seen in many parts of the world.[20]

1.3 The state of food security in the world

According to the 2015 Food and Agricultural Organisation (FAO)[21] report regarding the state of food insecurity in the world, approximately 10.9% of the global population is estimated to be undernourished. This is one in nine people worldwide, and about 795 million people in total. Approximately 780 million of these people live in developing countries, where under-nutrition is estimated to affect 12.9% of the population. Despite this, globally there is currently enough food available to feed the world.[22,23] Unfortunately, there is not an equal distribution of food around the world, resulting in many food insecure people going hungry. Some countries even face chronic food shortages.[5] The main cause of hunger worldwide is ascribed to a lack of access to food.[23]

1.4 The situation regarding the realisation of the right to adequate food in Sub-Saharan Africa and South Africa

As seen in the section below, despite the international human rights instruments and conventions signed or ratified by a large number of African countries, the right to adequate food is not being realised by all in Sub-Saharan Africa. Indeed, in many areas, including South Africa, it appears that the nutritional picture is worsening.

1.4.1 The situation regarding the realisation of the right to adequate food in Sub-Saharan Africa

The percentage of people suffering from chronic hunger in Sub-Saharan Africa was found to have increased (by 22%) between 1990 and 2003.[5] The 2005 World Health Consultation on nutrition and HIV/AIDS in Africa acknowledged that a lot needs to be done to reverse current trends of food insecurity and malnutrition in the region.[24] A study analysing the level of malnutrition and hunger in Africa found a level of 17.3% of under-nutrition in Sub-Saharan Africa in 2005.[25] However, whilst still trying to eradicate the high levels of infant and child mortality, countries in Sub-Saharan Africa are, at the same time, struggling with the effects of the nutrition transition where an increase in the intake of dietary fat and refined carbohydrates are seen, as well as an increase in the level of obesity.[26] In Sub-Saharan Africa very little progress has been made towards realising the goal of

the World Food Summit or the Millennium Development Goal to halve the number of undernourished people between 1990 and 2015.[24]

Food insecurity rates are higher in low-income countries (many of them in Sub-Saharan Africa) and many people in these countries consume a diet that is low in energy and deficient in essential nutrients. Under these conditions underweight, stunting and micronutrient deficiencies are seen.[27] Malnutrition is the underlying cause of death for between one third and half of the deaths in children under the age of five around the world.[28] There are high levels of infant and child mortality in Sub-Saharan Africa due to poor child feeding practices, inadequate quality of foods used for complementary feeding, micronutrient deficiencies and frequent infections. Between 5% and 20% of African women are malnourished due to chronic hunger.[29] From these findings it is clear to see that the right to adequate food is not realised by all in Sub-Saharan Africa.

1.4.2 The situation regarding the realisation of the right to adequate food in South Africa

The South African Constitution regards all rights as equal, interrelated, interdependent and indivisible; and explicitly recognises the right to food in the Bill of Rights.[30] South Africa has ratified the ICESCR, the CRC and the CEDAW; all of these documents recognise the right to food.[31] This indicates that in South Africa the State should be doing everything in its power to progressively realise the right to adequate food in the country, particularly for children.

However, there are concerns about how children's right to adequate food is realised in South Africa, particularly in rural areas.[32] Eighty percent of the world's undernourished children live in only 20 countries, of which South Africa is one.[33] In rural South African communities (2010) there is a persistence of under-nutrition in children, despite efforts in the country to improve food security.[32] There is an adequate supply of food in South Africa on a national level, but distribution on a household level remains problematic with household food insecurity still persisting.[34]

A strong and prosperous economic climate in the country is essential to supporting the "economic access"[12] aspect to the realisation of the right to adequate food; as without a good income people are not able to afford food. According to 2012 United Nations Development Programme statistics,[35] South Africa has a human development index of 0.619 and is ranked 123 out of 187 countries for human development. The same programme found that Sub-Saharan Africa's average human development index is 0.463, indicating that South Africa has a higher index than the average in the region however, on a global level South Africa is not achieving well. The International Food Policy Research Institute (IFPRI)[36] reported in 2012 that South Africa had a global hunger index classification of 5.8, which indicated moderate hunger in the country in

reference to insufficient energy intake, underweight in children and child morbidity. Although high, this was lower than most other African countries that had an index of more than ten. South Africa has the second highest Gini Index in the world, at 65; indicating a very unequal distribution of wealth within the country.[27] In 2012, the World Bank classified South Africa as a middle-income country[37] however, due to a history of colonialism and apartheid it has a mixture of both first and third world conditions.[38] In the South African context conditions of both under-nutrition and over-nutrition may exist simultaneously within the same household.[38]

1.5 The food and nutrition security situation in South Africa and the Eastern Cape

1.5.1 The food and nutrition security situation in South Africa

A 2011 review by Labadarios, et al of national food security surveys in South Africa found that there has been a large decrease in food insecurity within the country between 1999 and 2008. This decrease was seen both at the individual and household level. The overall decrease in food insecurity prevalence halved from 52% to 26%. Between 1999 and 2008, food insecurity levels dropped from 62% to 33% in rural areas and from 42% to 21% in urban areas. Unfortunately, there was almost no change in the number of people at risk for food insecurity.[3] Since 2008, there has been little improvement, with food insecurity being maintained at the same level. In 2012, the South African National Health and Nutrition Examination Survey (SANHANES-1) found that a quarter of the country (26%) was still food insecure.[34] In food insecure households there is a lack of dietary diversity and thus a prevalence of inadequate micronutrient intake.[39]

A good household income is essential to improve food security as the household income has a direct impact on the financial accessibility to food.[34] In 2008, in the Vaal region of South Africa, a study found that within their study population of people living in informal settlements, 70.5% of people living there experienced a frequent shortage of money.[40] A review of national surveys in South Africa published in 2011 found that the majority of households in South Africa struggle to achieve an adequate income and the estimated average income of poor households in the country is less than R1000 per month. This makes it very difficult for women to purchase enough food for their families to eat.[3] In 2012, the SANHANES-1 found that 39% of South Africans did not have enough money in their households to be able to purchase basic essential items, such as food.[34]

In 2015, Statistics South Africa (StatsSA)[41] reported that the food poverty line in South Africa was R335 per person per month (using data from the 2010/2011Income Expenditure Survey). This is the minimum amount of money needed per month to purchase the basic food basket. On average

in South Africa the cost of a healthy diet is 69% more than the unhealthy alternative according to a study evaluating cost of healthy diets (2011). The cost varies according to the choices of foods made and because of this a healthy, nutritious diet is unaffordable for most South Africans.[42]

Table 1.1: Foods most commonly consumed by people living in South Africa in descending order

Foods most commonly consumed by adults in descending order	Foods most commonly consumed by adults in descending order	Foods most commonly consumed by children (aged one to nine years of age) in descending order
Secondary analysis of dietary surveys in South Africa, Steyn, et al (2003)[43]	A study of people living in informal settlements in the Vaal region of South Africa, Oldewage-Theron and Slabbert (2008)[40]	Secondary analysis of dietary surveys in South Africa, Steyn, et al (2003)[43]
Maize porridge	Stiff maize meal porridge	Maize porridge
White sugar	Soft maize meal porridge	Sugar
Tea	Rooibos tea	Tea
Brown bread	Tea	Full-cream milk
White bread	Coffee	White bread
Non-dairy creamer	Sorghum porridge	
Brick margarine	White bread	
Chicken meat	Crumbly maize meal porridge	
Full-cream milk	Carbonated cool drink	
Green leafy vegetables	Mageu	

Energy-dense foods such as sugar, fat and refined cereals are cheap sources of energy. Unfortunately, these foods generally have a low nutrient density, but are frequently consumed.[42] Many South Africans are consuming a highly carbohydrate-based diet that is inadequate in protein sources and other essential nutrients. A secondary analysis of dietary surveys in South Africa by Steyn, et al (2003) assessed foods most commonly consumed in South Africa (Table 1.1). It found that the foods most commonly consumed by adults (in descending order) were maize porridge, white sugar, tea, brown bread, white bread, non-dairy creamer, brick margarine, chicken meat, full-cream milk, and green leafy vegetables.[43] Similarly, in 2008, a study by Oldewage-Theron and Slabbert found that within their study population of 340 caregivers living in informal settlements in the Vaal region of South Africa where most participants had a low household income of less than R500 per month the ten most frequently consumed foods in this group were (in descending order): stiff maize meal porridge, soft maize meal porridge, rooibos tea, tea, coffee, sorghum porridge, white bread, crumbly maize meal porridge, carbonated cool drink and mageu (a non-alcoholic fermented maize based drink).[40] (Table 1.1)

According to a secondary analysis of dietary surveys in South Africa (2003),[43] for children aged one to nine years of age the most commonly consumed foods (in descending order) were maize porridge, sugar, tea, full-cream milk and white bread (table 1.1). Similarly, a study looking at the nutritional trends in South African children between 1994 and 2004, found that the nutrient density of the diet consumed by children in South Africa is insufficient to meet their nutrient requirements.[38]

In South Africa in 2005, urban women were consuming 30% of their total energy intake as fat, and 57% as carbohydrates, whereas rural women were consuming 20% as fat and 68% as carbohydrates.[11] Similar findings were seen in 2012, where in rural areas of South Africa carbohydrates were found to contribute to 70% of the diet, and in urban areas the carbohydrate content of the diet was found to be lower at 56%.[27] The dietary diversity score in rural South African women was found to be low, consuming on average 3.3 different food groups per day, whereas in urban South African women it was found to be higher, at five, according to a study published in 2012.[27] Those consuming a low dietary diversity are most vulnerable to nutritional deficiencies.[44,45] In 2012, the SANHANES-1 found the national dietary diversity score to be at 4.2. It was lowest amongst the rural population at a mean of between 3.3 and 3.6. Black people were also found to have a lower score (4.0) than their coloured (4.5) and white (5.6) counterparts.[34]

Although there have been decreases in the levels of food insecurity within the country a quarter of South Africans remain food insecure.[34] Many households have an inadequate income and struggle to purchase enough food for their families to eat.[3,34] A healthy, nutritious diet is unaffordable for most South Africans and many are consuming a carbohydrate-based diet with a low nutrient density.[42] A lack of dietary diversity and a prevalence of inadequate micronutrient intake is seen within many households in South Africa.[39]

1.5.2 The food and nutrition security situation in the Eastern Cape

Households in the Eastern Cape experience the highest level of hunger in the country,[3] with 83% of households experiencing hunger according to the 1999 National Food Consumption Survey (NFCS).[46] According to a review of national food security surveys, food insecurity had decreased (but still remained high) to 45% in 2008.[3] By 2012, the level of food insecurity in the Eastern Cape had reduced further to 36% according to the SANHANES-1. However, it remains the province with the highest prevalence of food insecurity in South Africa.[34] In a study published in 2008, it was found that 100% of the study sample (459 rural shoppers in the Klipplaat area near the Blue Crane Route in the Cacadu District of the Eastern Cape) was food insecure.[47]

1.6 Nutritional status and factors affecting food security of South African children

1.6.1 The nutritional status of children in South Africa

Under-nutrition is a serious condition and is responsible for as many as 45% of deaths in children under five.[34] Under-nutrition can be present in the form of stunting, underweight or wasting as well as micronutrient deficiencies.

Stunting is a very common condition in South Africa and is an indication of chronic under-nutrition.[3] It is also causative of poor cognitive development and compromised physical abilities in the child, leading to the individual being less productive later in life.[34] The NFCS was conducted in 1999 on a representative sample of South African children aged one to nine years old. On a national level, it found stunting to be the most common nutritional disorder and was present in approximately one out of five children. According to the NFCS,[46] stunting levels were found to be highest in the youngest children, aged one to three, and lowest in those aged seven to nine years old.

Nutritional trends in South African children between 1994 and 2004, showed that mild and moderate stunting decreased over the period studied by approximately 35% and 20% respectively. However, the level of stunting in black children was much higher than that of their white and coloured counterparts.[38] According to a different study, stunting levels in children only decreased by 1% between 1999 and 2005, from 21.7% to 20.7%. In 2005, stunting affected 18.2% of children in urban areas and 23.9% of children in rural areas.[48] Not much improvement was shown between then and 2012, as reported in the SANHANES-1. Urban informal areas had a rate of stunting at 17.0% whilst rural informal areas were at 23.2%. Stunting remained highest in the youngest children, at 26.9% in the 0-3 year age group and lowest in the 7-9 year age group at 10.0%. Interestingly, in terms of ethnicity, coloured children were found to have a higher level of stunting (18.6%) than their black counterparts (16.7%).[34] This was different to the 1999 NFCS findings that found stunting levels to be highest amongst black children.[46]

The 1999 NFCS found that on a national level underweight was present in one out of ten children. This survey found underweight levels were highest in the youngest children, aged 1-3.[46] In 2005, underweight affected 7.8% in urban areas and 8.5% in rural areas.[48] By the time the 2012 SANHANES-1 was conducted, this had decreased to 7.4% in South Africa, but was at 14.0% in rural informal areas and 3.2% in urban informal areas. Unlike the 1999 NFCS, older children between 7-9 years of age had the highest level of underweight in 2012.[34] In the 1999 NFCS, wasting levels were found to be the same for all ages between 1-9 years.[46] Between 1999 and

2005, wasting levels in children increased from 4.3% to 5.8%. Rural children were most severely affected by the increase in wasting.[48] By 2012 the wasting levels had decreased to 3.8%, and rural children remained the most severely affected, as reported in the SANHANES-1.

The 2012 SANHANES-1 found that on a national level the prevalence of Vitamin A deficiency was at 43.6% in children under the age of five years. Vitamin A deficiency is known to affect the health and survival rates of infants and young children and a prevalence of more than 20% indicates a severe deficiency within the population. Black children had the highest prevalence at 45.4%. The same study found that the prevalence of anaemia was at 10.7% and iron depletion was at 8.1% within children under five years old. Iron deficiency anaemia is linked to impaired cognitive development and increased morbidity.[34]

A national survey regarding the nutritional status of pre-school children that was conducted between 1994 and 2004, found that children in the Eastern Cape have one of the highest rates of malnutrition in the country.[38]

1.6.2 Factors affecting the nutritional status and food security of South African children and thus their realisation of the right to food

The 2014 South African National Policy on Food Security recognises a number of food security challenges in South Africa. Unequal food distribution within South Africa is a problem. On a national level adequate food is produced, but nine million tons goes to waste each year. There are inadequate financial resources, and a lack of knowledge amongst people, preventing them from making optimal food choices. There are inadequate food safety nets available and food production costs are increasing due to an increased cost of inputs such as electricity and fuel. Climate change, urban development and poor management of land are affecting food security. There are not adequate opportunities available for smallholder farmers and there are poor reporting, analysis and monitoring of the food security situation and programmes to address food security within South Africa.[49]

It is estimated that malnutrition is the underlying cause of between a third and half the deaths in children younger than 5 years old.[28] The UNICEF conceptual framework that highlights the importance of household food insecurity as an underlying cause of malnutrition in children is well known.[50] Causes of malnutrition are complex, but there is international consensus about its two immediate causes, namely increased levels of infections (often related to inadequate child care practices) and insufficient intake of nutritious food.[28]

Women of child-bearing age, infants and young children are the most nutritionally vulnerable groups of people. This is because they have an increased risk of infections, higher nutritional requirements, micronutrient deficiencies and often a poor dietary intake.[29] It has been found that the crucial window period for reducing under-nutrition and its adverse effects is the period from the conception of pregnancy until 24 months of age. This period needs to be given attention to optimise nutritional well-being.[33] Breastfeeding is recognised as a key strategy to improve the nutritional status and food security of infants and young children.[28]

In Sub-Saharan Africa (2011), it was found that there are a number of risk factors that predispose children to malnutrition. Gender, birth order, age, preceding birth spacing, multiple birth and breastfeeding duration all influence nutritional status.[24] In Sub-Saharan Africa (according to a study published in 2011), children whose mothers are teenagers, have no education, are very poor or are single parents, have higher risks of malnutrition than their peers. This same study found that there is an association with any adult member in the household being HIV positive and higher malnutrition rates in children younger than 1 year of age. AIDS-affected households may have decreased agricultural and economic productivity leading to poor household food security which may lead to childhood malnutrition.[24] This is of particular relevance in South Africa as it is a country with a high prevalence of HIV/AIDS.[34]

In rural South Africa in 2002, a study found that a child is more likely to be undernourished if they have more siblings, particularly if they have numerous older siblings. No nutritional benefit was found for the children if their grandparents lived with them or supported them.[51] It was found that at a primary healthcare centre in the Western Cape (2006) children were significantly more likely to be nutritionally at-risk if they lived in a food insecure household than if they did not.[52]

In the Vaal region of South Africa in 2008, it was found that the underlying causes for malnutrition were household food insecurity, poverty, inadequate care for the vulnerable (e.g. mothers and children) and insufficient essential services such as healthcare, water, sanitation, education and housing.[40] Under conditions of food insecurity and lack of clean water, sanitation and access to health facilities, growth faltering may occur, and usually starts between 3-6 months of age and continues until environmental conditions improve.[53] A study published in 2011 that was conducted using rural South African children as the study sample, found that factors affecting childhood nutritional status include birth weight and age, maternal education and mother's age, socio-economic status and food security at a household level, and environmental and sanitation factors at the community level.[54] Young maternal age in the developing world is an important risk factor for childhood malnutrition, as documented by various studies.[54]

Male-headed households were found to earn an income of about 3 times as much as female-headed households in a study published in 2003 that was conducted on the black population in the North West province of South Africa; however, more male-led households reported that there was sometimes not enough food to eat for the children when compared to female-headed households.[55]

In developing countries most female headed households tend to be poorer, have less employment opportunities and own less.[20] In a study conducted on an informal settlement within the Vaal Triangle in South Africa in 2006, it was found that in the majority of households the mother is responsible for food procurement (83.8%), as well as food preparation (81.8%). She is also responsible for feeding the children in 79.6% of the population.[39]

In the table below (Table 1.2) the factors that have been reported in the literature to influence the levels of stunting, underweight and wasting in children, as well as food insecurity in South Africa is summarised.

Table 1.2: Factors that influence nutritional status and food insecurity of children in South Africa

Stunting	Underweight	Wasting	Food insecurity
Low level of maternal education[46]	Low level of maternal education[46]	Low level of maternal education[46]	Residing in a rural area[50]
Higher order births[24]	Higher order births[24]	Higher order births[24]	Large household size[50]
Male children[24]	Male children[24]	Male children[24]	Low household income[50]
Shorter birth intervals[24]	Shorter birth intervals[24]	Shorter birth intervals[24]	Households led by a single parent[55]
Poor dietary diversity scores[3]	Poor dietary diversity scores[3]	Poor dietary diversity scores[3]	Household headed by a person of black or coloured ethnicity[48]
Low birth weight[24,54]	Low birth weight[24,54]	Low birth weight[24,54]	
Children aged more than one year[24]	Children aged more than one year[24]	Younger children[24]	
HIV positive mother[24]	HIV positive mother[24]	HIV positive mother[24]	
HIV positive child[54]	HIV positive child[54]		
Non-co-residence or death of the child's mother[51]	Non-co-residence or death of the child's mother[51]		
Lack of financial support from the father[51]	Lack of financial support from the father[51]		
Young mother aged between 15-24 years[54]	Younger mothers aged between 15-24 years[54]		
Poor socio-economic conditions[48]	Younger household heads (less than 35 years old)[54]		
Lack of healthcare[48]			

1.7 A comparison of the realisation of the right to adequate food between rural and urban communities in South Africa

Numerous studies conducted in South Africa have indicated that there are vast differences in the nutritional status and diet between the rural and urban population within the country.[27]

In the 1999 NFCS, children living in rural areas were consistently found to have a lower energy intake than those living in urban areas.[46] In a study published in 2011, it was found that for the study population (from the Western Cape) more rural households (61%) than urban households (56%) were classified as experiencing hunger.[56] There is some evidence available that suggests

that infant mortality rates in black South Africans aged one to 12 months are directly impacted by whether the child lives in a rural or urban area.[57]

The 2012 SANHANES-1 found that people residing in formal rural areas had the highest level of food insecurity (37%), followed by informal urban areas (32%) and rural informal areas (29%). Formal urban areas had the lowest level of food insecurity (19%). Rural formal (60%) and rural informal (51%) areas had the lowest dietary diversity scores, whilst the urban informal (46.6%) and urban formal (29.3%) areas had less people with a low dietary diversity score.[34]

1.7.1 The situation regarding the realisation of the right to adequate food for rural South Africans

In many African countries rural communities rely on growing crops and rearing livestock to improve their food security situation; however, this is seen to a much lesser degree in South Africa due to rural populations not owning their own land. Due to the legacy of the previous apartheid regime in South Africa there remains an unfair distribution of land within the country, with 87% owned by white people, and only 13% owned by black people. Because of this previous inequality within South Africa, a large percentage of the population do not have access to agricultural land, and thus rely on supermarkets and/or fast food outlets and/or small shops (spazas) to purchase their food.[27]

Malnutrition rates are high in South Africa, especially in rural areas.[54] In a study published in 2002, it was found that food insecure households in South Africa are more likely to be situated in rural areas. Over 50% of households living in rural areas were found to be food insecure.[50] People living on commercial farms, in rural areas and in urban informal settlements in South Africa, experience various levels of dietary variety, household hunger and food intake. These households are characterised by poor food production and availability, low incomes and inadequate spending power.[23] In the 2012 SANHANES-1, 45% of rural formal residents reported not having enough money for basic essentials like food and clothes, compared to 29% of urban formal residents. However, more urban informal (58%) reported this than rural informal (51%) residents.[34]

Dietary diversity scores were found to be lower in rural informal (3.6) and rural formal (3.3) areas than the urban formal areas (4.7) which had a significantly higher dietary diversity score in the 2012 SANHANES-1. Rural areas had a lower intake of micronutrient rich fruit and vegetables than urban areas. This could be due to less access to shops and market places to purchase food and also because of the cost and availability of vegetables and fruits.[34]

1.7.2 The situation regarding the realisation of the right to adequate food for urban South Africans

Over the past few decades, there has been a rapid increase in the extent of urban poverty in developing countries, including South Africa. This in turn has led to higher levels of malnutrition in these areas.[40]

In the 1999 NFCS, urban areas were found to be the least affected by stunting, but those living in informal urban areas were more affected than those living in formal urban areas.[47] Between 1999 and 2005, the prevalence of wasting and underweight increased in children living in urban areas and decreased for those living in rural areas.[48] On the contrary, the 2012 SANHANES-1 reported less under-nutrition in urban areas compared to rural areas. Overweight and obesity however, were higher in children residing in urban areas.[34]

In 2008, in a city in South Africa (Cape Town), a study was conducted that found that 80% of the study sample (which consisted of participants from three communities) were either severely or moderately food insecure. The main reason for the food insecurity in this study was the price of the food. A large variety of foods were available in the city, but people could not afford them. There were two distinct times of the year that hunger was experienced, in January and the winter months, times of the year when expenditure increased and income decreased in the home.[47] Within urban areas there are certain pockets where the prevalence of urban food insecurity is much higher than in other places, such as in suburbs with a low household income.[58] A review of national food security surveys in South Africa (2011) found that formal urban households and households with a higher income (more than R12 000 per annum) had a better variety of food items than rural households and households with a lower income.[3] However, recent research (2012) found that although urban households have a higher dietary diversity score than their rural counterparts, the types of food they are eating are often non-nutritious and do not impact positively on a healthy dietary intake.[47]

There are differences in the nutritional status and diet between the rural and urban population within the country.[27] People residing in rural areas have the highest level of food insecurity, and the lowest dietary diversity scores.[34] However, for both rural and urban areas the informal dwelling areas have the highest prevalence of food insecurity.[34] Over the past few decades, there has been a rapid increase in the extent of urban poverty.[40] Although urban households have a higher dietary diversity score than their rural counterparts, the types of food they are eating are often of a poor nutritional quality and do not impact positively on a healthy dietary intake.[47]

1.8 Coping strategies used to improve the nutritional status and food security of households in South Africa

There are various coping strategies used by the person responsible for feeding the family to address household food insecurity.

Literature reports various coping strategies to deal with a lack of food such as limiting portion sizes,[39] maternal buffering,[39] limiting the variety of foods eaten,[39] for instance by eating maize and reducing protein and side-dish portion sizes[23] or feeding their children a poor diet[3], skipping meals,[3,39] relying on cheaper foods,[23] employing food seeking strategies (looking for wild foods)[23] and eating less preferred foods[23].

1.9 Assessment of Nutrition Intervention Programmes aimed at children in South Africa

As the South African government is the duty-bearer responsible for the progressive realisation of the right to adequate food for children in South Africa, one expects there to be numerous government policies and programmes in place that effectively address food insecurity and malnutrition in children. Unfortunately, very few evaluations of the programmes have been done and data on the topic is limited.

In 1994, after South Africa became a democracy, the Nutrition Committee (appointed by the Minister of Health) recommended the establishment of a comprehensive national nutrition strategy to combat malnutrition. An Integrated Nutrition Strategy with three components (community-based, health facility-based and nutrition promotion) was recommended. This strategy was adopted by the Department of Health in the form of the White Paper for the transformation of the health system.[59] It served as the basis for the Integrated Nutrition Programme (INP), which was developed as a holistic approach to nutrition. The INP targets vulnerable groups, including children under the age of five.[60,61] The 2013-2017 Roadmap for Nutrition in South Africa is the current framework guiding nutrition-related activities of the Department of Health, and the INP continues to be implemented through this framework.[62]

Depending on the type of intervention, the INP may be implemented at community sites, households, schools or health facilities. Table 1.3 summarises the aims of some of the INP programmes relevant to the realisation of the right to adequate food, including how well they have performed at meeting their intended goals between 1994 and 2010.[60]

Table 1.3: Performance of various Integrated Nutrition Programme (INP) programmes relevant to the realisation of the right to adequate food

Programme Name (Summarised from [60])	**Aim of Programme** (Summarised from [60])	**Performance of Programme** (Summarised from [60] and [63])
Primary School Nutrition Programme (In 2004, the programme was transferred from the INP to the Department of Education, and renamed the National School Nutrition Programme)	Addressing short-term hunger and improving educational outcomes in schools.	It is one of the programmes that has remained effective since its inception, and in 2015, 98% of the targeted schools were providing meals to qualifying children.[63]
Nutrition Therapeutic Programme (Previously known as the Nutrition Supplementation Programme, and before that the Protein Energy Malnutrition Scheme)	Nutrition supplements, nutrition education and nutrition counselling with the aim to correct under-nutrition.	Very few evaluations of the programme have been done. Some problems have been identified, including budgetary problems, insufficient staff training, poor compliance, inappropriate targeting and implementation, and no standardised monitoring.[60]
Health Facility-Based Nutrition Programme	Exclusive breastfeeding promotion, macronutrient and micronutrient supplementation, nutrition and health education, immunisation, growth monitoring and promotion, and diagnosis and treatment of disease.	Very few evaluations of the entire programme have been done.[60]
Salt iodisation	Mandatory salt iodisation (since 1995).	In 2005, only 0.7% of children aged 1-9 years old were found to be iodine deficient. This programme is working well.[60]
Fortification of food	Fortification of maize and wheat bread flour with zinc, vitamin A, iron, vitamin B6, niacin, thiamine and riboflavin have been mandatory (since 2003).	This programme has not been effective, it has poor implementation and there are no standardised guidelines for companies regarding the fortification mix.[63]
Vitamin A Supplementation Programme	Decreased vitamin A deficiency rates through universal vitamin A supplementation of children 6-59 months old.	In 2006, there was found to be a 95% coverage of vitamin A supplementation in children aged 6-11 months.[60] However, in 2015 a review stated the programme had failed to reach most children as children older than 18 months seldom receive supplementation.[63]
Maternal Nutrition and Infant and Young Child Feeding (Two of the INP's key performance areas)	Protection, promotion and support safe infant feeding practices through the implementation of the Mother Baby Friendly Initiative.	Out of a possible 545 facilities in South Africa 232 are Baby Friendly. The South African Code of the marketing of breast milk substitutes compliments the Baby Friendly Initiative.[60]

In 2008, approximately 70% of children aged between seven and 13 had access to free food at school through the National School Nutrition Programme.[64] It currently feeds over eight million children throughout the country.[63] The programme was first introduced in 1994 as the Primary School Nutrition Programme through the Department of Health with one of its aims to protect learners from hunger and malnutrition. In 2004, it was relocated to the Department of Basic Education and renamed the National School Nutrition Programme where one of its objectives was to improve food security in school communities.[63] It is one of the few government initiatives that has remained effectively implemented since its inception in 1994, and currently throughout the country, 98% of schools targeted by the programme provide meals to learners.[63]

A review assessing nutrition intervention programmes aimed at malnourished children in South Africa was published in 2012. It found that the majority of interventions have not improved the nutritional status of the target groups as planned. Community-based programmes, health facility-based programmes and nutrition promotion strategies are some of the methods that have been used. The INP has not improved growth rates in poor children adequately. The review concludes that the failure of these programmes is more likely due to their implementation and scale, rather than inappropriate strategies and policies or a lack of knowledge by policy makers.[60] Likewise a South African Government 2014 evaluation report regarding nutrition interventions in children under the age of five found that despite the INP little progress has been made in child nutritional status since 1999. Coordination, monitoring and implementation are regarded as problematic, rather than a lack of policy documents.[65]

Besides the INP, there are other programmes and policies that also support the realisation of the right to adequate food. The South African National Policy on Food Security has been developed by the Department of Agriculture, Forestry and Fisheries very recently, in 2014. It recognised that food and nutrition security is a complex problem and that it needs a collaborated multidisciplinary approach to address it. It aims to be an overarching framework that guides efforts and maximises integration between different programmes and strategies of both governmental departments and civil society, such as the INP. The policy document reports that its intention is to guide national, provincial and local governments on ensuring food security at every level and it intends to act as the framework to fulfil the constitutional right to food.[49]

The child support grant was first introduced in South Africa in 1998.[66] Its main objective is to ensure that there is financial assistance available for those living in extreme poverty, in the form of a cash supplement, but not as a replacement of the household income. It is intended to primarily contribute towards the purchasing of food for the child.[64] Since being introduced, it has become one of the most comprehensive social relief programmes throughout the developing world.[66] Initially, only children younger than seven qualified for the grant. This was increased to a cut-off age of 13 by 2005. There were concerns that the age cut-offs were not allowing for the proper

realisation of the rights of all children, as the South African Constitution classifies children as under 18 years of age.[64] The age for the child grant has now been extended to 18. This reflects well on the State's progressive realisation of the right to adequate food.[66]

Growing evidence points towards social grants having a positive impact on the lives of poor children living in South Africa.[64] Children who live in a household that utilises the support grant have an improved nutritional status. This is especially so for those who have an early initiation on it and receive it for a prolonged duration of time.[67] Unfortunately, the uptake of the grant is lowest in infants.[66] Early access to the grant is vital as young children are most vulnerable for nutritional deficiencies and malnutrition.[64] Despite this it is not considered to be a realistic, sustainable, long-term strategy, as it does not support an independent, self-sustaining community. This is because of financial constraints, as social grants cost a lot to implement and without an expanding economy the monetary value of the grants cannot be increased much. There is also a danger that increasing the monetary value of grants will give incentive for perverse behaviour by recipients.[67]

1.10 How a rights-based approach can improve the realisation of the right to adequate food

A study conducted in Malawi in 2007, examining human-rights-based approaches to development, highlighted that an environment should be created by states where individuals are able to claim and realise their human rights.[10] Applying a human-rights-based approach to nutrition and promoting the right to adequate food can contribute towards reducing the causes of under-nutrition. This approach will promote the right to adequate food which can contribute towards eradicating malnutrition at the immediate, underlying and root-cause level. The rights-based approach recognised the need for empowerment, participation and non-discrimination for the good of all.[28]

Improved food distribution alone will not solve the problem of food insecurity in a sustainable manner. Economic growth, promotion of agricultural projects, assistance to improve health, as well as water and education programmes are needed. Inequalities within-population regarding food security is one of the key indicators of health and economic disparities and deserve attention to improve health outcomes.[5] Sustainable, non-income dependent approaches should be used to address the lack of access to land in South Africa to alleviate food insecurity, e.g. by promoting subsistence farming.[3]

A study published in 2008, found that within the study population of people living in informal settlements in the Vaal region of South Africa, home vegetable gardens could reduce poverty levels, improve food security and increase micronutrient intake of households.[40] According to recent findings (2011), hunger manifests due to a lack of political commitment towards social

security provisions (such as job losses, a fall in wages, a loss of labour power or alienation of rural land), rather than because of a shortage of food. As a result, an integrated approach towards rural development that is based on agriculture is needed. It should focus on food-related public policy, as well as the empowerment of socially vulnerable small farmers with technology, marketing and institutional strategies to improve their production.[22]

The 2006 FAO document entitled "Right to food in practice: Implementation at a national level" recognises that a rights-based approach to food security is essential. It identifies five action areas that governments need to address so that the country can establish duty-bearers and rights-holders that are knowledgeable and focused on achieving the right to adequate food. It will also ensure effective action to target the right, promote accessible justice and have a durable impact. The five action areas are advocacy and training, information and assessment, legislation and accountability, strategy and coordination, as well as benchmarking and monitoring.[68]

A rights-based approach recommends that human rights principles should be employed throughout the development process when implementing programmes and policies, including throughout the assessment and analysis stage, planning of the programme, the implementation and the monitoring thereof. These principles include participation, non-discrimination, empowerment and accountability.[10] When human rights principles are applied, the community is involved in the decision-making process and is able to identify suitable programmes that they want to participate and be involved in themselves.[10,28] Commitments on paper mean very little if there is not an active civil society pressurising the State to act on its promises. In a number of previous instances in South Africa, civil society has been effective at ensuring human rights are adhered to, such as the Treatment Action Campaign's bid for free anti-retroviral medication and the Grootboom case for the right to access to housing.[69]

1.11 Conclusion and motivation for this study

Between 2010 and 2012, approximately 12.5% of the world's population were undernourished. In recent years levels of hunger have been increasing despite the world producing enough food to feed the entire global population. Malnutrition in the world is thus partially due to an unequal global distribution of food. This is despite a worldwide recognition of the right to food being a fundamental human right.

South Africa has ratified the CRC, the CEDAW, and the ICESCR. This indicates that South Africa as a state has committed to progressively realise the fundamental right to adequate food in the country, particularly for children and women. However, from the literature review it is evident that

the right to food is not fully realised in South Africa. In spite of South Africa being a middle income country, 26% of the country's population remained food insecure in 2012.

Within the country, the Eastern Cape was the most food insecure province, at 36% in 2012. This implies that for many people in the Eastern Cape the right to food is not fulfilled. Women and children are most vulnerable to food insecurity and the health status of children is frequently affected by food insecurity as they are most vulnerable to the effects of it. Furthermore, food insecurity and the related malnutrition appear to be more apparent in rural areas of South Africa, despite efforts in the country to improve food security.

This study aims to investigate how the right to adequate food is being realised, as well as what still needs to be done to realise this right of children living in the rural Eastern Cape. The findings of this study will identify areas that need to be addressed to fully realise the right to adequate food, as well as to inform local government and policymakers on the matter.

Chapter 2: Methodology

This study was divided up into two sections, key informant interviews and primary caregiver questionnaires. For ease of reading and clarity these will be referred to as "key informant interviews" and "primary caregiver questionnaires" throughout the methodology chapter.

2.1 Aim of the study

The aim of this study is to assess if the right to adequate food is realised by children (aged between one and five years old) and their primary caregivers living in urban and rural areas in the Blue Crane Route region of the Cacadu District in the Eastern Cape

2.2 Research questions

- Is the study population realising their right to adequate food?
    - What are the determinants that enable the study population to realise their right to adequate food, and what are the determinants that prevent them from realising their right to adequate food?
    - Are duty-bearers involved in helping the study population realise their right to adequate food?
- Are primary caregivers concerned with their children's realisation of the right to food?
    - Do primary caregivers have any coping strategies in place to improve their children's realisation of the right to adequate food?
- Is there a difference between the realisation of the right to food of the rural (people living on farms) and urban (people living in towns) study population?

2.3 Primary objectives

- To assess the realisation of the right to adequate food in the study population with regards to the level of food security.

- To ascertain if there is a relationship between the determinants and the realisation of the right to adequate food in this study population.

- To assess possible capacity gaps of duty-bearers in the realisation of the right to adequate food in this study population.

- To assess the perceptions of the primary caregivers in the study population regarding the actions required to realise the right to adequate food.

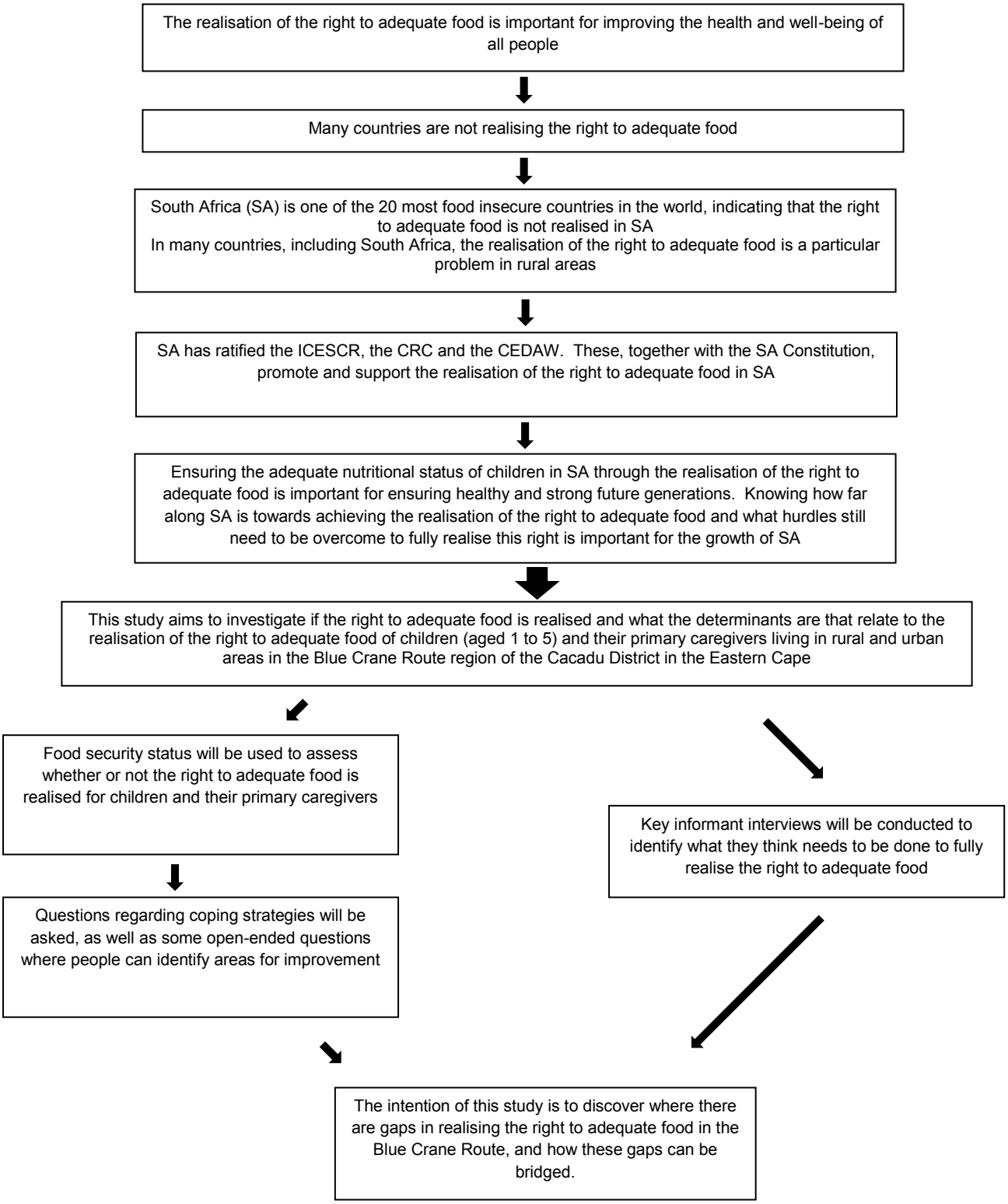
2.4 Secondary objectives

- To investigate the perceptions of the key informants within the community regarding the realisation of the right to adequate food of the study population.

- To compare the determinants to the realisation of the right to adequate food between the rural (people living on farms) and urban (people living in towns) sample groups within the study area.

2.5 Conceptual Framework

The conceptual framework below (Figure 2.1) graphically depicts the motivation for this study, as well as what this study intends to achieve.



CEDAW: International Convention on the Elimination of All Forms of Discrimination against Women

CRC: Convention of the Rights of the Child

ICESCR: International Covenant of Economic, Social and Cultural Rights

Figure 2.1: Conceptual framework of the study

2.6 Study Design

This study was a cross-sectional, descriptive study with an analytical component.

2.7 Study Population

2.7.1 Study population from which the study sample was drawn:

This study was conducted in the Blue Crane Local Municipality region of the Cacadu District in the Eastern Cape. According to the Census 2011 Community Profile published by Statistics South Africa,[70] the population in this region was 36002 people. This amounted to 0.5% of the total population of the Eastern Cape. Of the 36002 people, 4069 were children between the ages of 1 and 5 years old. Children below the age of one were not included in the study as the types of food that they eat are very different, and a lot more information regarding breastfeeding would have needed to be included in the study. Broadening the scope of the research and the focus of the research would have been extended beyond the requirements of the master's thesis for a 50 percent research project.

Of the 18322 enumeration area types in the Blue Crane Route Local Municipality region, 14738 were classified as urban and 3583 classified as rural. Thus, in the Blue Crane Route 80% of the population lived in urban areas and 20% lived in rural areas. The 2007 Community Survey[71], also published by Statistics South Africa, found that there were 9655 households with an average household size of 2.6 people in the area. Of these houses 84.8% were formal houses and 11.1% were informal living areas.

2.7.2 Selection of sample

2.7.2.1 Setting

The Blue Crane Local Municipality region includes three towns, namely Somerset East, Cookhouse and Pearston. The rest of the area mainly consists of farms. Within the Blue Crane Local Municipality region there are six clinics. Four of these are in the largest town of Somerset East: Union, Vera Barford, Aeroville and Beatrice Ngwentle Clinic. The other two clinics are situated in the towns of Pearston and Cookhouse; they are Gracey Clinic and Bongweni Clinic, respectively. Besides the six clinics located in the towns there are four mobile clinics servicing the people living on farms in the area, of which three of these operate using Aeroville Clinic as a base,

and one uses Gracey Clinic as a base. The aforementioned area is graphically depicted in Figure 2.2.[72]

Figure 2.2: A map indicating the size and location of the Blue Crane Route, with the towns of Cookhouse, Pearston and Somerset East[72]

2.7.2.2 Selection of the sample for key informant interviews

The persons identified for the key informant interviews were purposefully selected. Key role-players acting as duty-bearers involved in nutrition and food security, health or governance in the Blue Crane Route Local Municipality region were approached to participate in this part of the study. At least ten key informants were needed for the study, but more participants would be unlikely due to time constraints.

The following key informants were identified as appropriate candidates to approach for the key informant interviews:

- The Integrated Nutrition Programme Manager of the Cacadu district
- The Head of the Department of Agriculture in the Blue Crane Route
- The Supervisor of the social workers at the Department of Social Development in the Blue Crane Route
- The Clinic Supervisor overseeing two of the clinics in the Blue Crane Route and the mobile clinics
- The Clinic Supervisor overseeing four of the clinics in the Blue Crane Route
- The Nursing Services Manager at Andries Vosloo Hospital in Somerset East (the hospital that services the population of the Blue Crane Route)
- The Clinical Manager at Andries Vosloo Hospital
- The Portfolio Councillor of the Community Services Committee for the Blue Crane Route
- A member of the Community Services Committee and a Ward Councillor who was also previously the Manager of the Municipal Primary Health Services
- The Chairman of the Somerset East Agricultural Association

2.7.2.3 Selection of the sample for primary caregiver questionnaires

The sample selected aimed to be representative of the study population. Therefore, the sample consisted both of people living in towns (urban sample) and on farms (rural sample). Due to logistical reasons and time constraints, a convenience sample was selected from people visiting the local and mobile clinics.

Rural sample: For logistical reasons the three mobile clinics that were based in Somerset East were used to sample people living on farms. The three mobile clinics cover different routes each day (they have a total of 46 different routes, and visit different farms on each route). Because the roads are in poor condition and difficult to navigate, and the farms are difficult to find, the sisters at the mobile clinics recommended that the researchers do the research on the same days that the sisters conduct mobile clinic visits.

To ensure that randomisation was enforced in the selection of study participants when visiting mobile clinics, the researcher went on whichever route the mobile sister has scheduled for that day. This process increased the possibility that there would be people to interview. A maximum of 12 days were allocated for conducting research at the mobile clinic sites, and four days with each of the mobile clinics. However, if an adequate sample size was reached earlier, data collection would be stopped.

At the time of data collection one of the mobile clinic vehicles was out of working order. Thus, the two operating mobile clinics were accompanied for data collection. An adequate rural sample size was met after four days of data collection, with two days spent with each of the mobile clinics (from the 18th to 25th of September 2013). Additional rural participants participated in the study at the fixed clinics as they happened to be visiting the fixed clinics at the time of data collection.

Urban sample: All six clinics in the Blue Crane Local Municipality region were visited to obtain the urban sample. It was decided that clinic visits would continue until the sample size target had been met. Data collection took place over a period of five weeks, from the 20th of September to the 30th of October 2013, by which time an adequate sample size had been reached. Aeroville, Vera Barford, Beatrice Ngwentle and Bongweni Clinic were visited four times each, whilst Gracey and Union Clinic were visited three times each. Data collection was stopped once an adequate sample size was obtained, thus some clinics were visited three times, and others four times.

2.8 Sample size

The population as a whole was based on the results of the Census 2011 Community Profile that found there were 4069 children between the ages of one and five living in the Blue Crane Route area.[70] This age group was chosen because of the worldwide focus on morbidity and mortality in children below the age of five. Children below the age of one were not included in the study as the types of food that they eat are very different, and a lot more information regarding breastfeeding would have needed to be included in the study. This was impossible to do without a more complex questionnaire including more questions on the dietary intake of both infants and toddlers, which was not feasible for this study due to time constraints.

Probability of success to estimate a proportion was done using the Bernoulli Trial. A p-value of 0.5 was used, as well as a confidence percentage of 95 and an error percentage of 9. The high error percentage of 9 was chosen as it is not possible to aim for a lower percentage due to logistical and time constraints.

It was thus determined that 119 participants were needed in order to obtain a representative sample of the population. To ensure the same proportion was achieved within the study sample as in the general population, 80% (at least 95 participants) were taken from the urban data collection points and 20% (at least 24 participants) were taken from the rural data collection points (Figure 2.3).

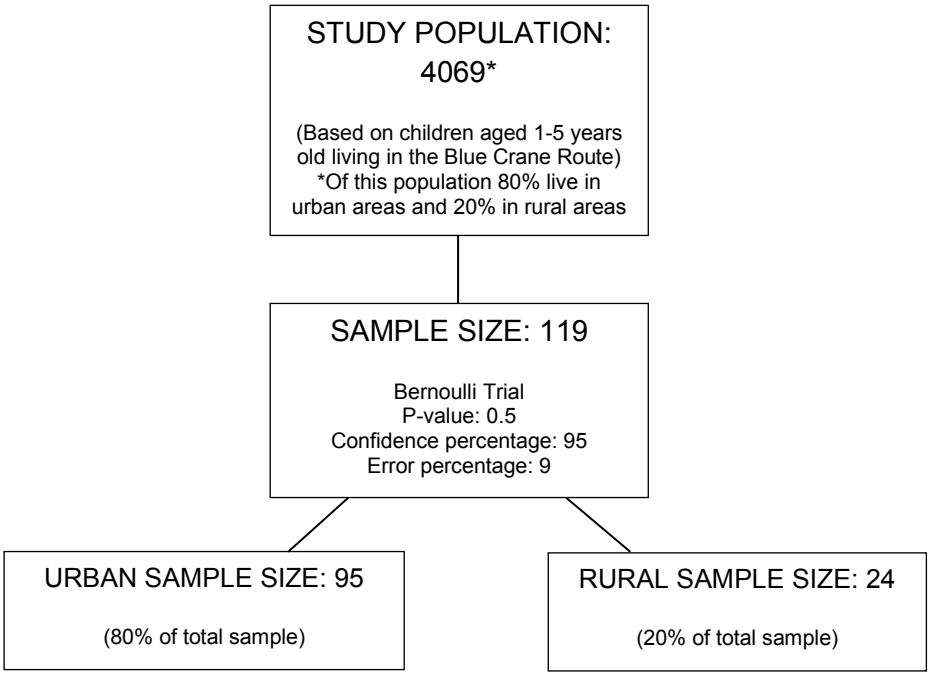


Figure 2.3: Sample size needed to have a representative sample of the study population

2.8.1 Inclusion / exclusion criteria

People who met the inclusion criteria for the study, and none of the exclusion criteria, were requested to participate in the study.

2.8.1.1 Inclusion

Key Informants

- Key informants were included if they were deemed to be knowledgeable about nutrition, food security, health and/or governance in the Blue Crane Route.
- Study participants had to be residents of the study area for at least the past 12 months.

Primary Caregivers

- The children had to live with their primary caregivers.
- Primary caregivers could be included if they were present with one or more children between the ages of 1 to 5 (if more than one child was present a coin was flipped to decide randomly which child to include in the study).
- The children had to be between the ages of 1 and 5 years.
- The children were expected to be visiting the clinics for immunisations, growth monitoring, supplementation, or for treatment of illness on the particular days of data gathering. Alternatively they were healthy, but at the clinic as the caregivers were visiting the clinic.
- Sick children were only included in the study if the mother or primary caregiver was willing to participate.
- All children included had to have their Road to Health Booklet or clinic book with them. This was needed to validate the child's date of birth.
- The primary caregiver had to be able to understand and speak English, Afrikaans or isiXhosa.
- Study participants had to be residents of the study area for at least the past 6 months.

2.8.1.2 Exclusion

Key Informants

- Key informants were excluded from the study if they were unwilling or unable to participate in the study.
- Key informants who participated in the pilot study were excluded.

Primary Caregivers

- Children between the age of 0 and 1 were not included as the questions asked about this age group would be very different to those about children above the age of 1 year due to infant feeding practices.
- Children who were present at the clinic without their primary caregiver, or a primary caregiver who was present without their child, were excluded.
- Primary caregivers and children who participated in the pilot study were excluded.

- Anyone who met the inclusion criteria, but was unwilling to participate in the study, was excluded.

2.9 Methods of data collection

2.9.1 Research Instruments

Two research instruments were used to collect data. For the key informants a discussion guide for in-depth interviews was used. For the primary caregivers an interviewer-administered questionnaire was used. The two instruments allowed for both qualitative and quantitative data to be collected, which allowed for triangulation of data.

2.9.1.1 Discussion Guide for Key Informant Interviews

A semi-structured discussion guide was used during the in-depth interviews with key informants (Addendum A). Although each interview was slightly different depending on the answers that the interviewee gave, the interview typically begun with eight structured questions to identify the type of work the interviewee did, as well as how involved they were within the local community. This was followed by a question regarding whether or not the interviewee thought there was a problem with hunger in the study population. Thereafter, the interviewee's understanding of the concepts of "food security" and "right to food" was investigated. After the interviewee had answered this question he/she were provided with the correct definitions, so as to ensure that the rest of the discussion was based on these definitions. After this, eight broad, open-ended questions regarding food security, as well as obstacles faced and improvements that can be made towards the realisation of the right to adequate food, were discussed. Here leeway was given to allow the interviewee to discuss other relevant points that were not specifically asked.

The discussion guide was available in English and Afrikaans (Addendum A). The original discussion guide was drawn up in English by the principal researcher. It was then translated into Afrikaans by a first language Afrikaans speaker, and then translated back into English by another Afrikaans first language speaker (who were both fluent in English). It was then compared to the original English discussion guide to ensure that the questions were still the same, and rewording was done to the Afrikaans discussion guide by the translators where necessary. It was felt that it was unnecessary to translate it into isiXhosa as all identified key informants were able to either speak English or Afrikaans fluently.

2.9.1.2 Primary Caregiver Questionnaires:

The data was collected from the primary caregiver by means of an interviewer-administered questionnaire. The questionnaire (Addendum B) consisted of four sections. Section A through to Section C consisted mainly of closed questions, although a few open-ended questions were included where necessary. Section D consisted mostly of open-ended questions.

Section A (Screening questions): There were six screening questions to investigate whether or not the participant met the inclusion criteria and could be included in the study. There was also space to fill in the participant code. If the potential participant complied with all the inclusion criteria, the interviewer proceeded to the next section.

Section B (Socio-demographic questions): There was space to enter the date and name of the health care facility, as well as four socio-demographic sub-sections relating to the child's information, the caregiver and mother's information, the household information and the household income. The majority of the questions were based on questions in the demographic section from the NFCS[46] and the adjusted South African Food Insecurity and Vulnerability Information and Mapping System[73].

Section C (Food security questions): As how the right to adequate food is being realised is not easy to assess, a number of different measures that look at food security were used to assess the level of food security. This in turn gives an indication of the realisation of the right to adequate food; if a person is not food secure their right to food is not fully realised. The Community Childhood Hunger Identification Project's (CCHIP) hunger score, number of meals eaten, dietary diversity, hunger months, household income spent on food, and coping methods were investigated. This section made up the majority of the questionnaire.

Seven questions were asked to assess the food security situation of the child and family; and eleven questions were asked to assess the coping strategies in place to deal with food insecurity. The majority of the questions were based on questions from the NFCS[46] and the adjusted South African Food Insecurity and Vulnerability Information and Mapping System[73]. This section included the Community Childhood Hunger Identification Project (CCHIP) hunger index which is an objective measure of the level of food security.[74] The standardised dietary diversity score[75] was adjusted and food groups were combined so as to shorten the questionnaire as it was already fairly lengthy. A picture of the food fortification logo was shown to participants in this section, so the researcher and interpreter each had a big, colour printed, laminated copy thereof to ensure caregivers could see it clearly. This picture was shown to participants to evaluate whether or not they recognised and looked for the logo when purchasing foodstuffs.

Section D (Primary caregiver perceptions): This section consisted of seven open-ended questions where participants were asked to identify ways to improve food security and the realisation of the right to adequate food.

The questionnaire was available in English, Afrikaans and isiXhosa (Addendum B). The original questionnaire was drawn up in English by the principal researcher. It was then translated into Afrikaans and isiXhosa in the same manner as the discussion guide. All translators used in the translating of the questionnaires had a postgraduate tertiary level of education, and were from the Eastern Cape.

2.9.2 Method of data collection

2.9.2.1 Method of data collection for key informant interviews

The key informant interviews were conducted between August 2013 and January 2014, after the pilot study had taken place in July 2013 (refer to Section 2.10.1). Key informants were contacted telephonically two weeks before data collection. At this time they were asked if they were willing to participate in the study and a date, time and place were set for the interview based on the interviewee's preference. The interviewee was phoned again one day before the interview was scheduled to remind the person of the appointment.

On the day of the interview the researcher explained the purpose of the study and asked the interviewee to sign an informed consent form if they were still willing to be interviewed and if they were willing to have the interview voice recorded (Addendum C). The interviewee received a copy thereof. Any questions the interviewee had regarding the research were answered. All interview forms and consent forms were coded. The same code was used on both forms. This code begun with four numbers, indicating the day and month that the research was conducted; and a chronological number, indicating which number the participant was for the day.

The interviews were all conducted by the principal researcher, and they were all conducted in either English or Afrikaans, depending on the interviewee's preference. Answers were recorded using a voice recorder, and then later transcribed by the principal researcher before data was analysed. Afrikaans interviews were translated into English transcriptions to simplify coding. The translations were re-checked by the principal researcher to ensure that they were a true version of the original interview. All the recordings and electronic documents have been safely stored and will be destroyed six months after the completion of the research. The consent forms are being kept separately from the transcribed interviews.

2.9.2.2 Method of data collection for primary caregiver questionnaires

Once ethics approval from the Committee for Human Research at Stellenbosch University (Addendum D) and permission from the Eastern Cape Department of Health (Addendum E) were granted, the regional clinic managers were contacted to inform them about the study. All the relevant clinics and mobile clinics were contacted a month before data collection to arrange suitable dates and times for implementation of the research.

The principal researcher had a total of eight weeks to gather data for the primary caregiver questionnaires. The intention was to use the first five weeks for data collection. The other three weeks were reserved to be used should the target sample size not be reached within the first five weeks. Practically the researcher could visit one data collection point per day over 25 days and it was estimated that five participants would be interviewed each day. Therefore, it was estimated that the researcher would interview approximately 125 participants throughout the data collection period, ensuring an adequate sample size. In reality, data collection took six weeks (from the 18th September to the 30th October 2013) before an adequate sample size was reached.

The clinics in the Blue Crane Route were visited on different days of the week to ensure variation, for example, that they were not only visited on a Monday which may be allocated for persons suffering from chronic diseases. The clinics were asked if they had specific days of the week that they see children on, and if so, clinic visits were arranged to ensure that data collection took place on these days. When visiting the mobile clinics, routes and days were randomly chosen to fit in with the schedules of the various mobile clinics.

On the day of data collection, the researcher and interpreter first introduced themselves to the clinic supervisor and discussed the logistical arrangements with them before starting with data collection. All individuals with children at the clinics (and mobile clinics) on that day were approached to take part in the study. It was arranged with the clinic sister, that if the person was waiting in a queue to be consulted, he/she did not lose his/her spot in the queue whilst he/she was busy with the researcher. Willing individuals were screened by means of Section A of the questionnaire (Addendum B) to see whether they met the inclusion criteria. If they complied with the inclusion criteria, they could continue with the completion of the questionnaire. If they did not comply, they were not included in the study. Suitable individuals either read or had the consent forms read to them and then signed it if they were willing to participate. They received a copy of the consent form to keep for themselves (Addendum F). Illiterate individuals were asked to make an imprint of their thumb on both consent forms.

All questionnaire and consent forms were coded. The same code was used on both forms. The code begun with the three letters, “rur” or “urb”, to indicate whether the participant lived in a rural or urban area. It was followed by four numbers indicating the day and month that the research was conducted on (e.g. 0903 indicates that the research was conducted on the 9th of March); and finally, a chronological number indicating which number the participant was for the day (e.g. the third participant seen for the day had the number 03). If the participants met the inclusion criteria, they were given a participant code, regardless of whether or not they consented to participate in the study.

A suitable place to conduct the interview was arranged with the clinic sister on arrival at the clinic, before data collection begun. The researcher administered the questionnaire verbally and documented the answers on the questionnaire forms. Each questionnaire took approximately 30 minutes to complete. The interviews were conducted in privacy. The researcher was fluent in English and Afrikaans and conducted these interviews herself. If the participant was unable to understand and speak English or Afrikaans, an isiXhosa interpreter was available to administer the isiXhosa questionnaire and translate the participants’ responses. In this case the interpreter documented the information onto an isiXhosa questionnaire form and recorded the open-ended answers verbatim.

An isiXhosa interpreter translated the open-ended questions in the questionnaire into English after the questionnaire had been completed, but before data was captured. As the answers to the closed-ended questions followed the same sequence in all the questionnaires, it was not necessary for these to be translated into English. The researcher did the translation of the Afrikaans questionnaire answers into English herself. All questionnaires were checked for completeness and then stored in a sealed box until data capturing took place. The consent forms have been kept separately from the questionnaires.

2.9.3 Research assistant: isiXhosa interpreter

The principal researcher (a dietitian) collected the data herself, together with an isiXhosa interpreter. The interpreter was used to conduct the questionnaires in isiXhosa when participants did not understand either English or Afrikaans.

The criteria for the selection of an interpreter required somebody identified from the local community, who had isiXhosa as a first language, a matric certificate and an ability to read, write and speak English fluently (and preferably also an ability to speak Afrikaans). The person selected as the interpreter was a qualified social worker who resided in the Blue Crane Route, had isiXhosa

as a first language and was able to read, write and speak English fluently as well as able to speak Afrikaans.

After the pilot study, the isiXhosa interpreter was trained regarding suitable questionnaire techniques. She was trained regarding how to ask questions and define terms in the same manner as the researcher so as to ensure standardisation of the interview technique.

The questionnaire included clear guidelines for the interpreter to follow if the interviewee met the screening criteria. A clarification of the term 'primary caregiver' was included to ensure that both the researcher and interpreter understood it in the same way. When questions had more than one option, the questionnaire clearly stated whether or not to ask for one answer or more than one. Items such as date of birth were clearly indicated to be recorded by day-month-year to ensure consistent recording by both the researcher and interpreter. Questions that included tables and were more complicated to fill in, were explained in detail to the interpreter to ensure she understood how to fill them in correctly.

2.10 Pilot study

2.10.1 Pilot study of key informant interviews

A pilot study of the key informant interviews was conducted in July 2013 with two suitable key informants. The two selected individuals were a dietitian working for the Department of Health in the Blue Crane Route, as well as a previous primary school principal and current church minister and manager of Ithemba (a food relief scheme) in the Blue Crane Route. They were selected as suitable candidates for the pilot study as the dietitian was knowledgeable on the topics of food security and the right to adequate food, and the manager of Ithemba had a vast knowledge acquired over many years of the food situation of the community in the Blue Crane Route.

The pilot study was done to allow the interviewer to practice interviewing techniques, voice recording efficacy and evaluate how effective the discussion guide was, as well as to determine the time needed to conduct an interview. During the pilot study it was identified that an interview would take approximately one hour to complete. It also aided in improving transcribing and coding techniques.

Before the two pilot studies were conducted, a practice interview was held with a dietitian living in Somerset East, who was able to answer questions about food security, but had only been living in the area for less than 6 months and was thus not suitable for the study. During this interview the

interviewer was critiqued on her style of interviewing by an occupational therapist who was proficient in interviewing techniques to improve the interview style.

There were a number of problems encountered during this process. The voice recorder caused a number of hassles. The voice recorder that was used for the practice interview was not suitable as the recording could not be saved in an electronic format, and this voice recorder had to be discarded. A second voice recorder was used for the first pilot study, but this too proved problematic as it had a poor sound quality and the computer software was outdated. Consequently, a third voice recorder (Bell Office Digital Voice Recorder DVR-6006) was used, which proved successful. The initial pilot study with the dietitian was repeated as the voice recording of the first interview could not be saved.

Another problem encountered during all the interviews was with question 3 which included: “How can we ensure food security in this area?”. It was evident in the practice interview, the discarded pilot interview, and the two actual pilot interviews, that the interviewees were not comfortable with this question. It is quite a technical question and difficult to answer on the spot. They felt on edge by it as it was still quite early in the interview. They were not yet comfortable with the interviewing process and the types of questions being asked. This question is repeated again later during the interview in a number of different ways, making it possible to remove it from question 3, so early in the interview. Question 6 included “What are the things that influence food security in the area?”, question 9 included “Do you think it is necessary for more to be done to improve food security in the area and if so what?”; and question 10 included “Can you think of any other aspects in the community that influence food security?” which all allow for question 3 to be answered. By this time the interviewee has had time to formulate an answer to this contentious question due to the answers that were given to previous questions, putting them more at ease and making them feel more comfortable to answer the question.

A third problem was that during the discarded pilot study the interviewee did not have her phone on silent or switched off and a message came through during the interview, taking her attention away and disturbing her train of thought. It was decided that in future interviews interviewees would be requested to put their phones on silent or off, if possible and willing.

A fourth problem encountered was that the interviewer did not remind the second pilot study participant the day before the scheduled interview (as discussed in the protocol). The interviewee forgot to come to the scheduled appointment and another date had to be organised. From this the interviewer learnt how important it is to remind participants about the interview the day before, and this was done for all the key informant interviews thereafter.

2.10.2 Pilot study of primary caregiver questionnaires

In early September 2013, a pilot study of the caregiver questionnaires took place in the paediatric ward at Andries Vosloo Hospital in Somerset East to test the questionnaire. This hospital was chosen as it was convenient for the researcher, provided access to the study population and was not one of the points that were going to be used for data collection of the study. The Chief Executive Officer (CEO) of the hospital was contacted one month before the pilot study was planned to take place to obtain permission to conduct the pilot study at the hospital. A week before the pilot study was conducted, the sister in charge of the paediatric ward was contacted to inform her of the study. On the day of the pilot study the sister was greeted and logistical arrangements were discussed with her before the study commenced. Originally only the paediatric ward was going to be used however, as there were not sufficient patients in the ward the out-patient and allied health departments were also visited (after permission was granted from the hospital's CEO).

A total of 11 participants qualified to participate, but one opted not to participate, thus 10 people took part in the pilot study. Individuals participating in the pilot study included caregivers and their children from each of the three language groups: English, Afrikaans and isiXhosa. The consent form and questionnaire were completed in privacy. The same methods of data collection were used as described for the main study.

The pilot study was conducted by the principal investigator, as well as the interpreter who had been used to translate the questionnaires into isiXhosa originally so that mistakes could be identified easily and rectified as needed. It allowed the researcher to find out whether the questionnaire was understood and interpreted correctly by the participants. The researcher standardised the method of questioning, as well as the definitions of unfamiliar terms during the pilot study. This ensured consistency and reliability in the way questions were asked.

Problems in terms of the questions and the method of administration were identified during the pilot study and these problems were corrected before the final study was conducted. An additional question regarding whether the household grew vegetables or kept livestock was added (Section C, question 2.1.2, Addendum B), as it was found during the pilot study that asking if participants had access to land and water (Section C, question 2.1.1, Addendum B), did not clearly indicate whether or not they were using it. The way question 2.6 (Section C, Addendum B) was worded was changed. The question originally asked which months of the year certain things occurred, e.g. begging for food. Participants struggled to identify which months of the previous year this had happened. This question was rephrased as a yes/no question, and if the answer was affirmative, the participant was then asked to identify how many months in the previous year it had occurred, rather than which month. Minor changes to the Afrikaans and isiXhosa questionnaire were made

regarding word choice for the questions. Please see Addendum G for a full list of changes made after the pilot study.

2.11 Validity and reliability

In order to improve the validity and reliability of the key informant interviews, the interviewer was transparent about the intentions of the research and that the interviews were being recorded using a voice recorder.

Interviews were translated into English and transcribed word-for-word by the principal researcher, unless the original concept was lost in a word-for-word translation (e.g. idioms). The interviewer checked the transcripts once they had been transcribed to ensure that they were a true reflection of the interviews. Transcripts were then coded, using common themes identified from the interviews, and emerging themes were also added. The transcripts were consulted again after the results had been compiled to ensure that all the relevant themes were portrayed within the right context.

Face validity refers to the extent that a measure makes sense to those knowledgeable on the subject matter.[2] In order to improve the face validity of the questionnaire used for the primary caregiver questionnaires, the draft questionnaire was submitted to an expert in health education and questionnaire compilation who assessed the wording, sentence structure, order of questions and clarity of the questionnaire.

Content validity refers to a measure accounting for all the components involved in the concept or variable being examined.[2] The questionnaire was based on existing instruments to improve the content validity and adjusted to ensure suitability for this study population and to meet the study objectives. The majority of the questions were based on questions from the NFCS[46] and the adjusted South African Food Insecurity and Vulnerability Information and Mapping System[73]. This included the CCHIP hunger index which has been proven to measure the food security level of a family.[74]

The questionnaire was also submitted to two experts in the field of food security and the right to food, who evaluated the content validity of the questionnaire and its relevance to meet the aims of the study. A section on anthropometry in the questionnaire was taken out as per the recommendation of one of the experts. The suggestion was that the questionnaire was already long enough, and doing anthropometric measurements would not necessarily add enough value to the findings to justify the time, expense and further logistical arrangements that taking the measurements would entail.

2.12 Analysis of data

2.12.1 Analysis of quantitative data

MS Excel was used to capture the data. For data analysis the software systems STATISTICA version 10 and IBM SPSS version 22 were used.

Summary statistics were used to describe the variables. Distributions of variables were presented with histograms and/or frequency tables. Medians or means were used as the measures of central location for ordinal and continuous responses and standard deviations and quartiles as indicators of spread.

When ordinal response variables were compared versus a nominal input variable, non-parametric ANOVA methods were used (Kruskal-Wallis tests). The relation between nominal variables was investigated with contingency tables and appropriate chi-square tests or the Fisher's exact test. To determine a level of significance a p-value of <0.05 was used throughout.

The CCHIP hunger index was analysed by giving a score of 0 to 8 depending on the participant's answer. For each affirmative response a point was given. A score of five or more indicted a food insecurity problem that affected the whole household. A score of one to four indicated a risk for food insecurity and a score of zero indicated that the household was food secure. The Kruskal-Wallis test was used to test for the significance of the findings and the Bonferroni test for the direction of the significance between the various within-group comparisons.

The dietary diversity of the participants was calculated by grouping caregivers and children into having a low dietary diversity (less than four different food groups consumed on the day prior to the questionnaire), a medium dietary diversity (four to five food groups) or a high dietary diversity (six or more food groups). The seven food groups included in this comparison were starch, protein, vegetables, fruit, legumes, dairy and fats. Sugar, beverages and alcohol were excluded from the analysis as they do not contribute to the micronutrient density of the meal.[75]

2.12.2 Analysis of qualitative data

2.12.2.1 Qualitative analysis of primary caregiver questionnaires

Section D of the primary caregiver questionnaire consisted of six open-ended questions about the primary caregivers perceptions of what can be done to improve the realisation of the right to adequate food. Inductive coding was used to sort responses to these questions into categories

depending on the themes that emerged from the data. MS Excel was used to summarise the findings and group answers of the open-ended questions together.

2.12.2.2 Qualitative analysis of key informant interviews

Content analysis of qualitative data needs to be done to identify common themes. When this analysis takes place there are a number of steps that must be followed. This includes transcribing the data, reading through the transcriptions repeatedly to become familiar with the content, coding of the data, identifying themes, interpreting the data, and then drawing results and conclusions.[76]

The researcher transcribed the audio recordings of the interviews, including notes on the tone of voice and emotions projected. By reading and re-reading each transcript until familiar with the content, the researcher performed content analysis. Thereafter, the transcripts were summarised for each of the discussion points in the interview guide by means of deductive coding. Other reoccurring themes were identified and summarized. Findings were summarised in MS Excel.

2.13 Ethical and legal aspects

2.13.1 Ethics Approval

The study was submitted to the Health Research Ethics Committee, Faculty of Medicine and Health Sciences at Stellenbosch University for ethics approval (S13/05/095). The research was only conducted once ethics approval had been obtained.

The study was conducted according to the ethical guidelines and principles of the International Declaration of Helsinki, the South African Guidelines for Good Clinical Practice and the Medical Research Council Ethical Guidelines for research.

A letter of permission to visit the clinics was sent to the Eastern Cape Department of Health (Addendum H) after ethics approval had been granted. The clinics were only visited once permission had been granted by the Department of Health (Addendum E).

2.13.2 Informed consent, confidentiality and privacy

For the key informant interviews the researcher was aware of who each interviewee was due to the nature of the interview. However, the participants' names remained confidential by using a participant code during data capturing and analysis. Only their occupational or official titles were

used when data was recorded and results reported. They were made aware that their title would be used in the reporting of the results. They were only interviewed if they were comfortable to provide written informed consent for the interview and the voice recording thereof. Participants were informed that they would not be receiving remuneration for their participation in the study. The consent forms were available in English and Afrikaans and participants received a signed copy thereof to take home (Addendum C).

Participants partaking in the primary caregiver questionnaires either had the consent form read to them by the researcher or interpreter, or they were asked to read through it themselves if they were literate. The participants were asked to sign the form if they agreed to participate in the study. Participants were informed that they would not be receiving remuneration for their participation in the study. The consent forms were available in English, Afrikaans and isiXhosa (Addendum F). To protect the participants' confidentiality and privacy the questionnaires were filled out anonymously, and the participants' consent forms were kept separate from their completed questionnaires. Nobody other than the principal researcher had access to the consent forms. No names were recorded on the questionnaires and results were reported anonymously.

At any point during the administering of the questionnaire if the participant wished to withdraw from the study, he or she could do so. This did not negatively affect the person in any way.

2.14 Conclusion

Two instruments were used to collect data for this study. Key informant interviews gathered qualitative data of the perceptions of key informants regarding the realisation of the right to adequate food of the communities living in the Blue Crane Route. Primary caregiver questionnaires provided a quantitative investigation into factors related to the realisation of the right to adequate food for a sample of the people residing in the Blue Crane Route.

Chapter 3: Results

3.1 Demographic information

In this section, the demographics of the primary caregivers and key informants will be presented in order to provide a better understanding of the type of people that were included in the study. Please note that throughout the results section the primary caregivers will be referred to as caregivers.

3.1.1 Primary caregiver questionnaires

In total, 161 caregivers together with their children between the ages of one and five, participated in this study. All participants who met the inclusion criteria were willing to participant in the study. Within the study sample 126 participants (78.3%) lived in urban areas and 35 participants (21.7%) resided in rural areas.

Most households represented in the study had between four to six people residing in them (64.0%, n = 103). However, the smallest household size was two people, and the largest was 15. Eighty three percent (83.2%, n = 134) of the households had between two to four adults living in the house. Most commonly, there were two adults in the household, but it ranged between a minimum of one and a maximum of nine adults. Regarding the children, 79.5% (n = 128) of the households had between one to three children in their residences. The maximum number of children in a household was eight. Both rural and urban households most frequently had between four to five people residing in them. Urban households had a higher maximum number of children (8) compared to rural households that had a maximum of five children. The same trend was seen in adults with nine and six as the biggest number of adults respectively (see Table 3.1).

Table 3.1: Number of children and caregivers living in households within the Blue Crane Route (N = 161)

No of people in household		Children in household			Adults in household			Total household size		
		Urban n = 126	Rural n = 35	Total N = 161	Urban n = 126	Rural N = 35	Total N = 161	Urban n = 126	Rural n = 35	Total N = 161
1	%	17.5	22.9	18.6	3.2	2.9	3.1	0.0	0.0	0.0
	n	22	8	30	4	1	5	0	0	0
2	%	34.1	42.9	36.0	41.3	57.1	44.7	1.6	0.0	1.2
	n	43	15	58	52	20	72	2	0	2
3	%	26.2	20.0	24.8	27.8	20.0	26.1	7.9	20.0	10.6
	n	33	7	40	35	7	42	10	7	17
4	%	11.9	8.6	11.2	13.5	8.6	12.4	22.2	22.9	22.4
	n	15	3	18	17	3	20	28	8	36
5	%	2.4	5.7	3.1	8.7	5.7	8.1	22.2	25.7	23.0
	n	3	2	5	11	2	13	28	9	37
6	%	4.8	0.0	3.7	2.4	5.7	3.1	19.0	17.1	18.6
	n	6	0	6	3	2	5	24	6	30
7	%	1.6	0.0	1.2	0.8	0.0	0.6	6.3	5.7	6.2
	n	2	0	2	1	0	1	8	2	10
8	%	1.6	0.0	1.2	1.6	0.0	1.2	7.9	0.0	6.2
	n	2	0	2	2	0	2	10	0	10
9	%	0.0	0.0	0.0	0.8	0.0	0.6	4.8	5.7	5.0
	n	0	0	0	1	0	1	6	2	8
10	%	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	3.1
	n	0	0	0	0	0	0	5	0	5
11	%	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.9	1.2
	n	0	0	0	0	0	0	1	1	2
12	%	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.2
	n	0	0	0	0	0	0	2	0	2
13	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	n	0	0	0	0	0	0	0	0	0
14	%	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6
	n	0	0	0	0	0	0	1	0	1
15	%	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6
	n	0	0	0	0	0	0	1	0	1

One hundred and fifty nine of the caregivers (98.8%) answered the question regarding their age, as two of them did not know their own age. Their ages ranged between 17 and 73 years of age. The mean age of the caregivers was 32 years (Figure 3.1). All but one of the caregivers were female (99.4%; n = 160). Regarding ethnicity of the caregivers, as well as their children, 50.9% (n = 82) were black, 49.1% (n = 79) were coloured and there were no white participants.

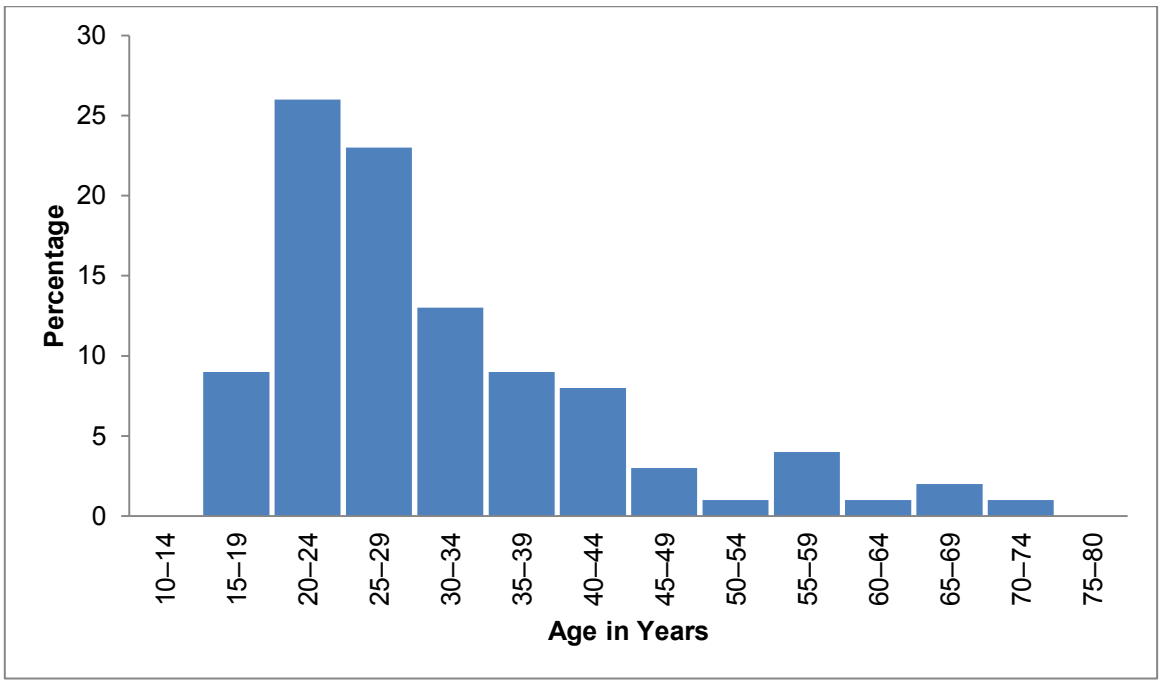


Figure 3.1: Age of primary caregivers residing in the Blue Crane Route in years (n = 159)

The children's ages ranged from 12 months to 69 months, with the mean age being 34 months. Sixty-two percent (61.5%, n = 99) of the children were below the age of 36 months, which makes the distribution non-parametric (Figure 3.2). Forty-seven percent (47.2%, n = 76) of the children were male and 52.8% (n = 85) female.

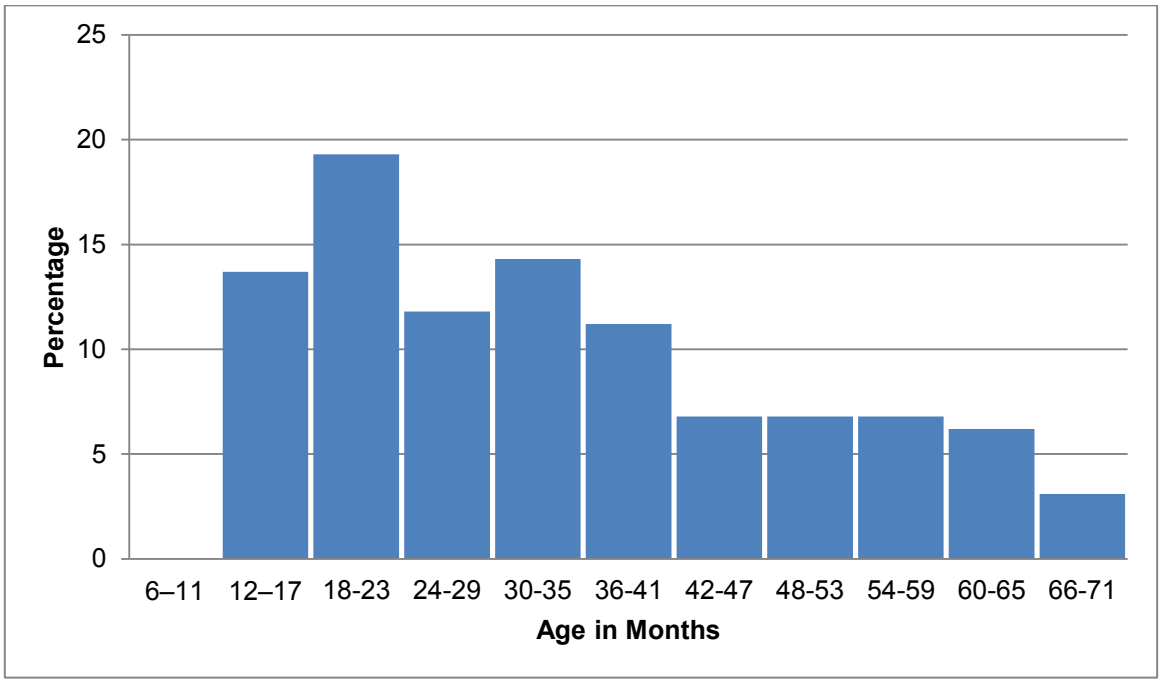


Figure 3.2: Age of children (1 – 5 years old) residing in the Blue Crane Route in months (N = 161)

3.1.2 Key informants

Eleven key informants participated in the study; more than this was not possible due to time constraints.

The only person who was approached and who was unwilling to participate (due to her own time constraints), was the supervisor of the social workers at the Department of Social Development for the Blue Crane Route. Consequently, the Afrikaanse Christelike Vroue Vereeniging (ACVV) [Afrikaans Christian Women's Union] social worker was interviewed instead. One additional key informant was added to the list, the Support Group Coordinator at the Blue Crane Hospice, as a number of the other key informants suggested that a Hospice representative be interviewed.

The key informants interviewed consisted of the following respected and influential role-players in the community of the Blue Crane Route:

- The Integrated Nutrition Programme Manager of the Cacadu district
- The Production Scientist of the Department of Agriculture in the Blue Crane Route
- The ACVV social worker in the Blue Crane Route
- The Clinic Supervisor overseeing two of the clinics in the Blue Crane Route and the mobile clinics
- The Clinic Supervisor overseeing four of the clinics in the Blue Crane Route
- The Nursing Services Manager at Andries Vosloo Hospital in Somerset East (the hospital that services the population of the Blue Crane Route)
- The Clinical Manager and Acting Hospital Manager at Andries Vosloo Hospital, as well as the ANC branch chairperson in ward 2 of the Blue Crane Route
- The Portfolio Councillor of the Community Services Committee for the Blue Crane Route
- A member of the Community Services Committee and a Ward Councillor who was also previously the Manager of the Municipal Primary Health Services
- The Chairman of the Somerset East Agricultural Association
- The Support Group Coordinator at the Blue Crane Hospice

Of the 11 key informants, seven were female and four were male. There were five white, five black and one coloured participant(s). Their ages ranged from 31 to 66 years old. Nine English

interviews and two Afrikaans interviews were conducted. Each interview took an average of 50 minutes to complete, with the shortest one taking 24 minutes and the longest 71 minutes to complete.

All key informants worked in the Blue Crane Route; the shortest amount of time spent working there was four years. Only one participant did not reside in the Blue Crane Route, the Integrated Nutrition Programme Manager. However, as she had been working in the Blue Crane Route for the past 27 years, she was deemed knowledgeable and appropriate to interview.

3.2 Results discussed per objective

In this section, the findings made after conducting the primary caregiver questionnaire and key informant interviews will be discussed using each of the objectives of this study. First, an assessment of the realisation of the right to adequate food in the caregiver study population will be made using the level of food security, where after the relationship between the determinants of and the realisation of the right to adequate food in the study population will be investigated.

Capacity gaps of duty-bearers that are inhibiting the realisation of the right will be discussed by examining inadequate living conditions, gender discrimination, poor implementation and management of social grants, inadequate policy and programme implementation, inadequate employment opportunities and inadequate support of agrarian practices.

This will be followed by a section on the perceptions of the primary caregivers regarding the actions required to realise the right to adequate food, and then a section on the perceptions of the key informants regarding the realisation of the right to adequate food. The perceptions of the caregivers will be discussed according to actions the different levels of duty-bearers responsible for the realisation of the right to adequate food can take, namely steps the primary caregivers can take, actions of the family, and actions needed to be taken by the State. The perceptions of the key informants will focus on the right to adequate food not being fully realised and persons and institutions inhibiting the realisation.

The comparison of differences between the rural and urban sub-groups within the study population will be provided throughout the text to prevent repetition. A final, brief section will summarise the main differences between the two sub-groups.

3.2.1 Assessment of the realisation of the right to adequate food in the study population by using the level of food security

How the right to adequate food is being realised is not easy to assess hence, a number of different measures that look at food security were used to assess the level of food security. This in turn gives an indication of the realisation of the right to adequate food; if a person is not food secure their right to food is not fully realised. The Community Childhood Hunger Identification Project's (CCHIP) hunger score, number of meals eaten, dietary diversity, hunger months, household income spent on food, and coping methods were investigated.

3.2.1.1 The CCHIP hunger index

The CCHIP hunger index was used to determine domestic hunger within this study. It was discovered that 55.9% (n = 90) of the households were at risk of food insecurity and 21.1% (n = 34) were food insecure at some point within the past 30 days. When asked about more frequent levels of food insecurity (5 or more days in the past 30 days), the level of food insecurity decreased to 42.2% (n = 68) at risk of food insecurity and 8.7% (n = 14) food insecure (Table 3.2).

Table 3.2: Level of food insecurity in households in the Blue Crane Route (N = 161)

Category of food insecurity		Urban Sample (n = 126)		Rural Sample (n = 35)		Total Sample (N = 161)	
		At some point within the past 30 days	Five or more days in the past 30 days	At some point within the past 30 days	Five or more days in the past 30 days	At some point within the past 30 days	Five or more days in the past 30 days
Food insecure	**%**	19.0	7.9	28.6	11.4	21.1	8.7
	n	24	10	10	4	34	14
At risk of food insecurity	**%**	57.1	41.3	51.4	45.7	55.9	42.2
	n	72	52	18	16	90	68
Food secure	**%**	23.8	50.8	20.0	42.9	23.0	49.1
	n	30	64	7	15	37	79

When comparing the level of food security between the rural and urban groups, the rural group was found to be more food insecure, but the difference was not significant. Within the rural sample 28.6% (n = 10) of the households had experienced food insecurity at some point within the past month, whereas 19.0% (n = 24) of the urban group had (p=0.470). (Figure 3.3) As with the total sample, more frequent food insecurity levels decreased for both the rural and urban groups (Figure

3.4) with the rural group experiencing 11.4% (n = 4) of frequent food insecurity and the urban group 7.9% (n = 10) (p=0.649). (Table 3.2)

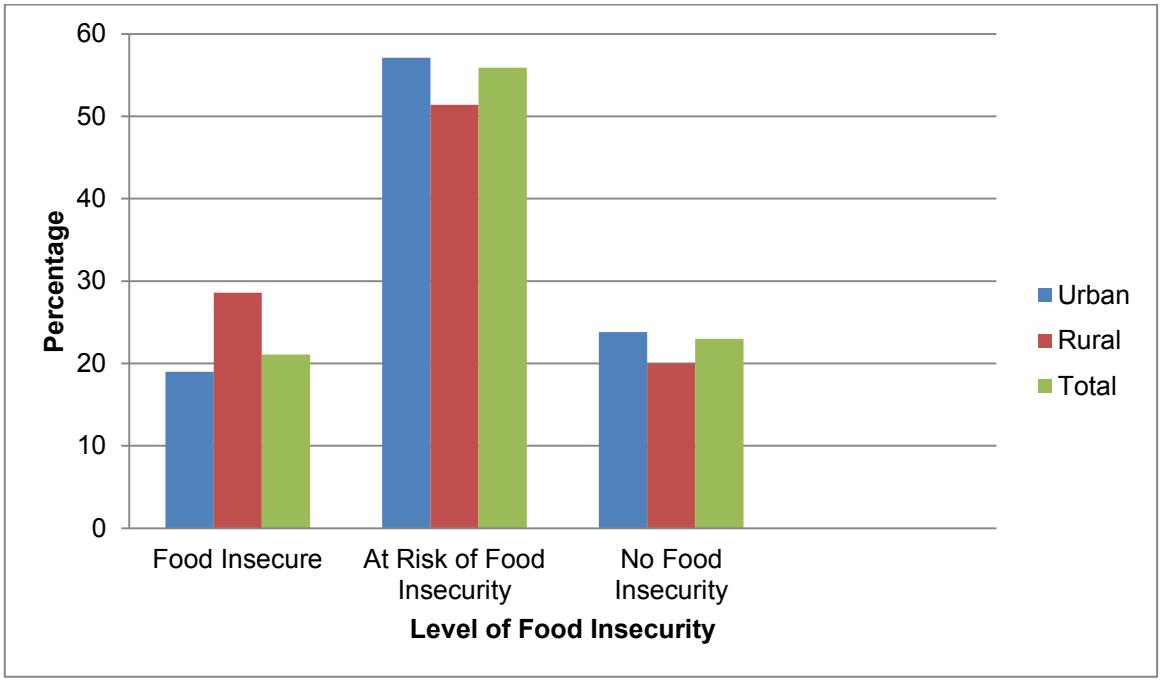


Figure 3.3: Number of households (N = 161) in the Blue Crane Route that experienced food insecurity at some point in the last month

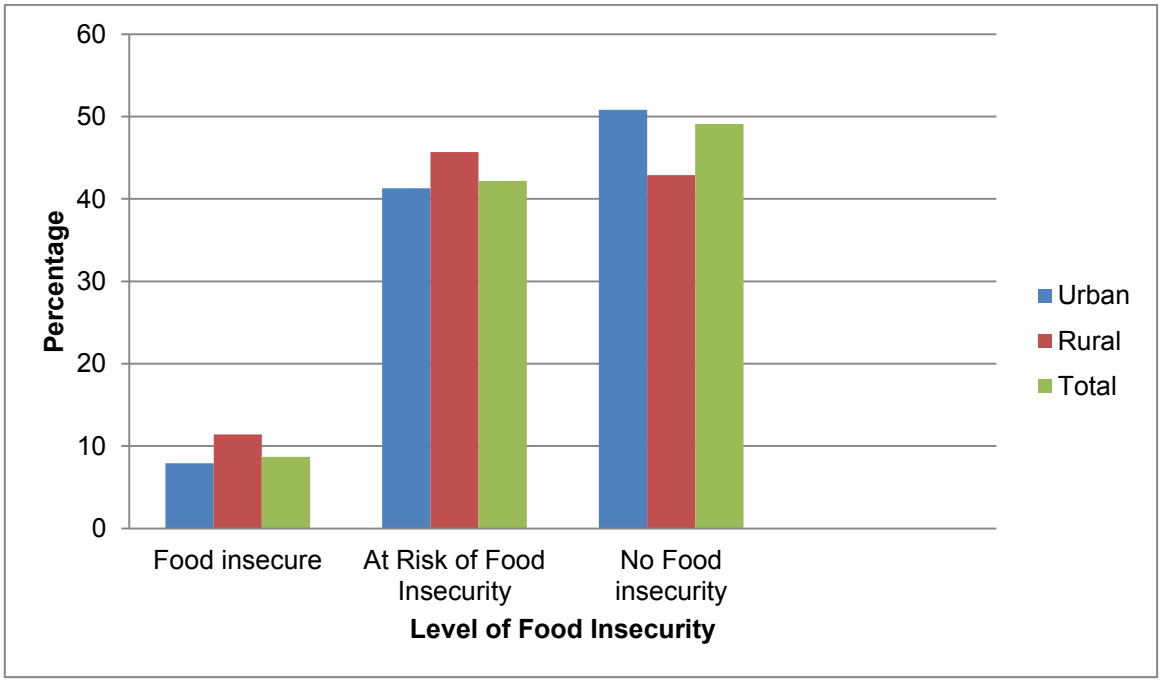


Figure 3.4: Number of households (N = 161) in the Blue Crane Route that experienced food insecurity for five or more days in the last month

3.2.1.2 Number of meals eaten per day

Most commonly, both the children (42.9%, n = 69) and the caregivers (45.3%, n = 73) had eaten three meals on the day prior to the questionnaire. However, it was also apparent that children more frequently received more than three meals per day (Figure 3.5) when compared to the caregivers (Figure 3.6). Figure 3.5 illustrates that 36.6% (n = 59) of the children ate four, five or six meals whilst only 13.7% (n = 22) of the caregivers ate more than three meals on the previous day (Figure 3.7). There were also fewer children (20.5%, n = 33) who had eaten less than three meals (none, one or two) on the day prior to investigation when compared to the caregivers (41.0%, n = 66).

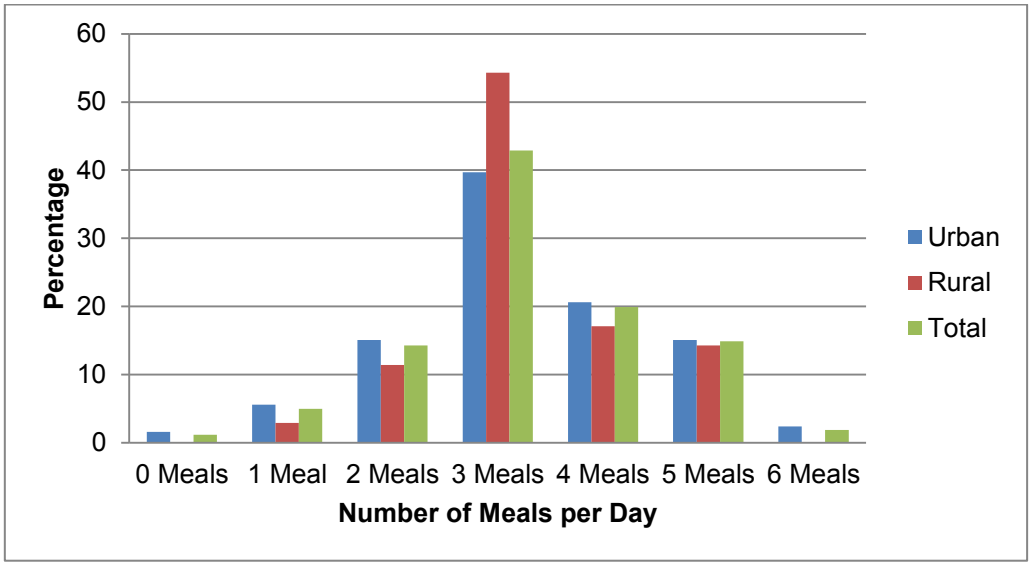


Figure 3.5: Number of meals eaten per day by rural and urban children (1 – 5 years old) residing in the Blue Crane Route in percentages (N = 161)

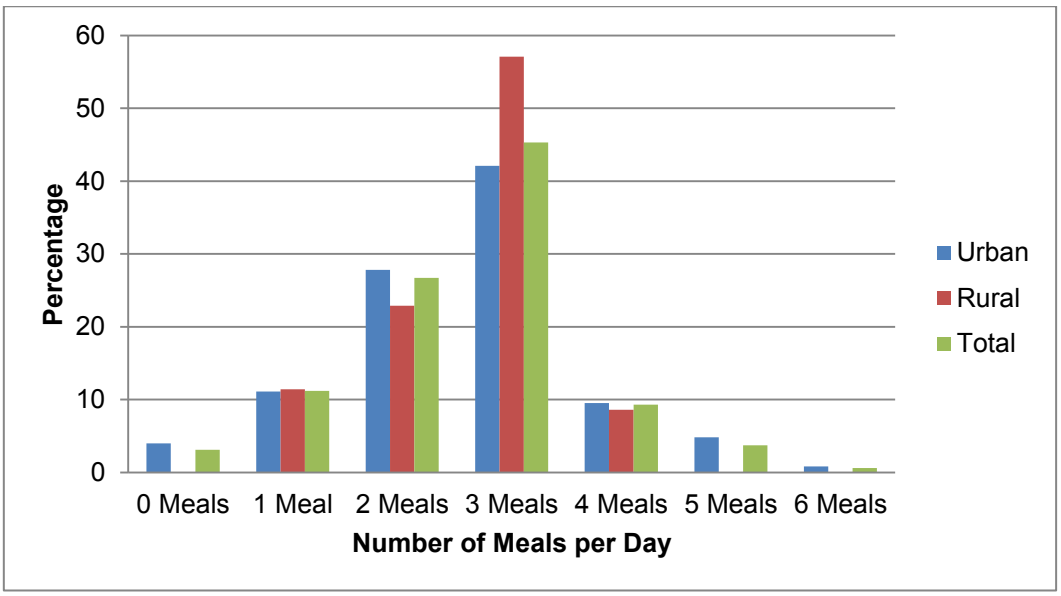


Figure 3.6: Number of meals eaten per day by rural and urban primary caregivers residing in the Blue Crane Route in percentages (N = 161)

3.2.1.3 Dietary Diversity

The food types eaten by the children and caregivers on the day prior to the questionnaire were investigated. More than 80% of all participants had consumed starch, fats, sugar and beverages on the day prior to the questionnaire. More of the urban than rural sample consumed protein, vegetables and fruits. Figure 3.7 shows that for the children, protein intake was 77.0% (n = 97 - urban) compared to 57.1% (n = 20 - rural), vegetable intake was 57.1% (n = 72 - urban) compared to 14.3% (n = 5 - rural) and fruit intake was 45.2% (n = 57 - urban) compared to 20.0% (n = 7 - rural). A similar comparison was seen with the caregivers (Figure 3.8) however, more dairy was consumed by the rural children (74.3%, n = 26) compared to the urban children (66.7%, n = 21). Again, a similar trend was seen with the caregivers (Table 3.3).

Table 3.3: Types of food eaten by children (1 - 5 years) and their primary caregivers in the Blue Crane Route on the day prior to the questionnaire (N = 161)

Types of food eaten on the day prior to the questionnaire		Urban Sample (n = 126)		Rural Sample (n = 35)		Total Sample (N = 161)	
		Children (n = 126)	Primary Caregivers (n = 126)	Children (n = 35)	Primary caregivers (n = 35)	Children (N = 161)	Primary caregivers (N = 161)
Starch	%	96.0	94.4	100.0	100.0	96.9	95.7
	n	121	119	35	35	156	154
Protein	%	77.0	77.8	57.1	57.1	72.7	73.3
	n	97	98	20	20	117	118
Vegetables	%	57.1	52.4	14.3	17.1	47.8	44.7
	n	72	66	5	6	77	72
Fruit	%	45.2	38.9	20.0	14.3	39.8	33.5
	n	57	49	7	5	64	54
Legumes	%	16.7	18.3	17.1	17.1	16.8	18.0
	n	21	23	6	6	27	29
Dairy	%	66.7	45.2	74.3	65.7	68.3	49.7
	n	84	57	26	23	110	80
Fats	%	83.3	81.0	85.7	85.7	83.9	82.0
	n	105	102	30	30	135	132
Sugar	%	90.5	90.5	85.7	82.9	89.4	88.8
	n	114	114	30	29	144	143
Beverages	%	93.7	92.9	100.0	97.1	95.0	93.8
	n	118	117	35	34	153	151
Alcohol	%	0.0	1.6	0.0	5.7	0.0	2.5
	n	0	2	0	2	0	4

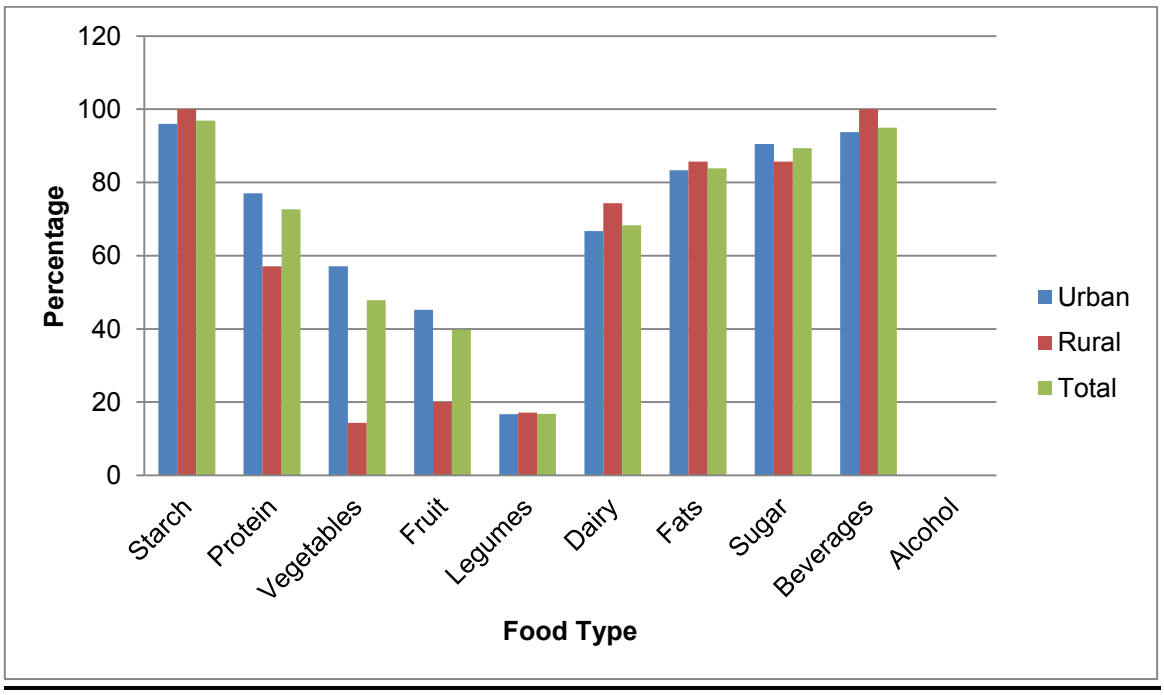


Figure 3.7: Types of food eaten by rural and urban children (1 – 5 years old) residing in the Blue Crane Route on the day prior to the questionnaire in percentages (N = 161)

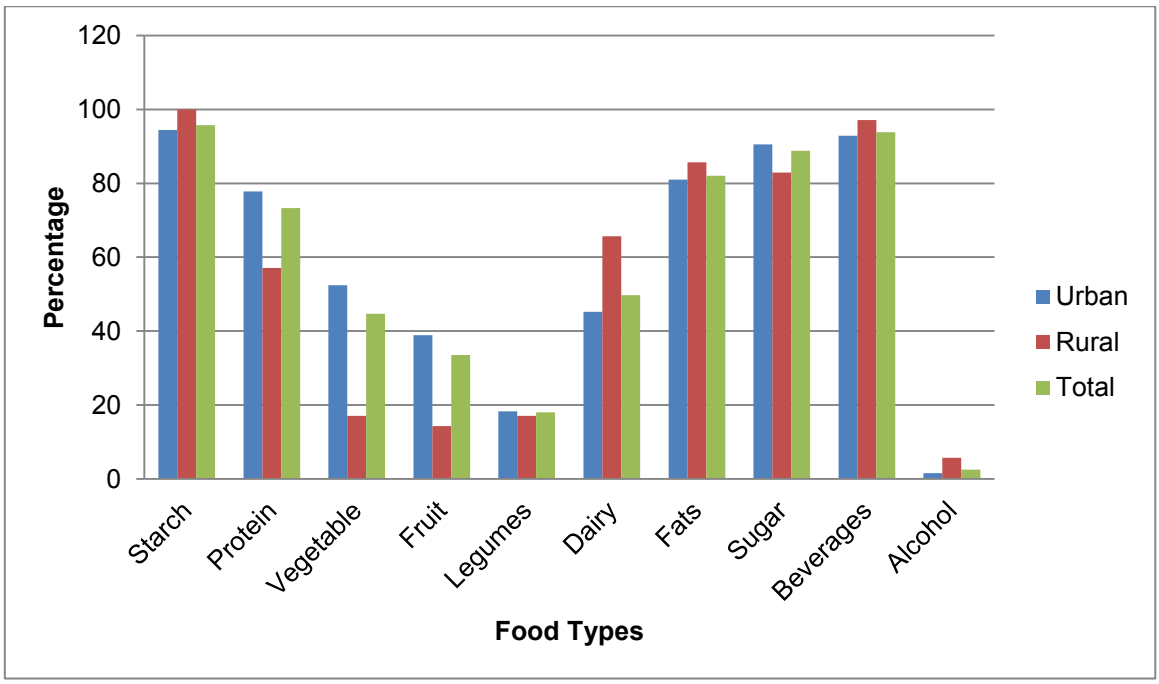


Figure 3.8: Types of food eaten by rural and urban primary caregivers residing in the Blue Crane Route on the day prior to the questionnaire in percentages (N = 161)

Participants were grouped into having a low dietary diversity (less than four different food groups consumed on the day prior to the questionnaire), a medium dietary diversity (four to five food groups) or a high dietary diversity (six or more food groups).

The seven food groups included in this comparison were starch, protein, vegetables, fruit, legumes, dairy and fats. Most commonly, participants were found to have a medium dietary diversity (51.6%, n = 83 and 52.8%, n = 85 for the children and caregivers respectively). More children than caregivers had a high dietary diversity (17.4%, n = 28 compared to 11.8%, n = 19). When comparing the urban and rural groups, both the urban children and caregivers had a higher dietary diversity (Table 3.4).

Table 3.4: Dietary diversity of children (1 - 5 years) and their primary caregivers on the day prior to the questionnaire based on the intake of starch, protein, vegetables, fruit, legumes, dairy and fats (N = 161)

Dietary Diversity		Urban Sample (n = 126)		Rural Sample (n = 35)		Total Sample (N = 161)	
		Children (n = 126)	Primary Caregivers (n = 126)	Children (n = 35)	Primary caregivers (n = 35)	Children (N =161)	Primary caregivers (N = 161)
Low Dietary Diversity (≤ 3 food groups)	%	25.4	30.2	51.4	54.3	31.1	35.4
	n	32	38	18	19	50	57
Medium Dietary Diversity (4-5 food groups)	%	54.0	55.6	42.9	42.9	51.6	52.8
	n	68	70	15	15	83	85
High Dietary Diversity (6-7 food groups)	%	20.6	14.3	5.7	2.9	17.4	11.8
	n	26	18	2	1	28	19

Urban children consumed an average of 4.4 food groups compared to 4.1 for the rural children. Likewise, urban caregivers had an average of 3.7 food groups compared to 3.6 for the rural caregivers (Table 3.5).

Table 3.5: Average number of food groups consumed out of a maximum of 7 for children (1 - 5 years) and their primary caregivers on the day prior to the questionnaire based on the intake of starch, protein, vegetables, fruit, legumes, dairy and fats (N = 161)

Urban Sample (n = 126)		Rural Sample (n = 35)		Total Sample (N = 161)	
Children (n = 126)	Primary Caregivers (n = 126)	Children (n = 35)	Primary caregivers (n = 35)	Children (N = 161)	Primary caregivers (N = 161)
4.4	4.1	3.7	3.6	4.3	4.0

3.2.1.4 Hunger months

Primary caregivers were asked whether they had experienced any months in the past year that they had a shortage of food that resulted in household members being hungry. The mean number of months that participants reported this occurring was 2.5 out of the previous 12 months. January was the month that was reported to have the highest percentage of hunger (35.4%, n = 57) and December was found to be the month with the least amount of hunger experienced (13.7%, n = 22) (Figure 3.9).

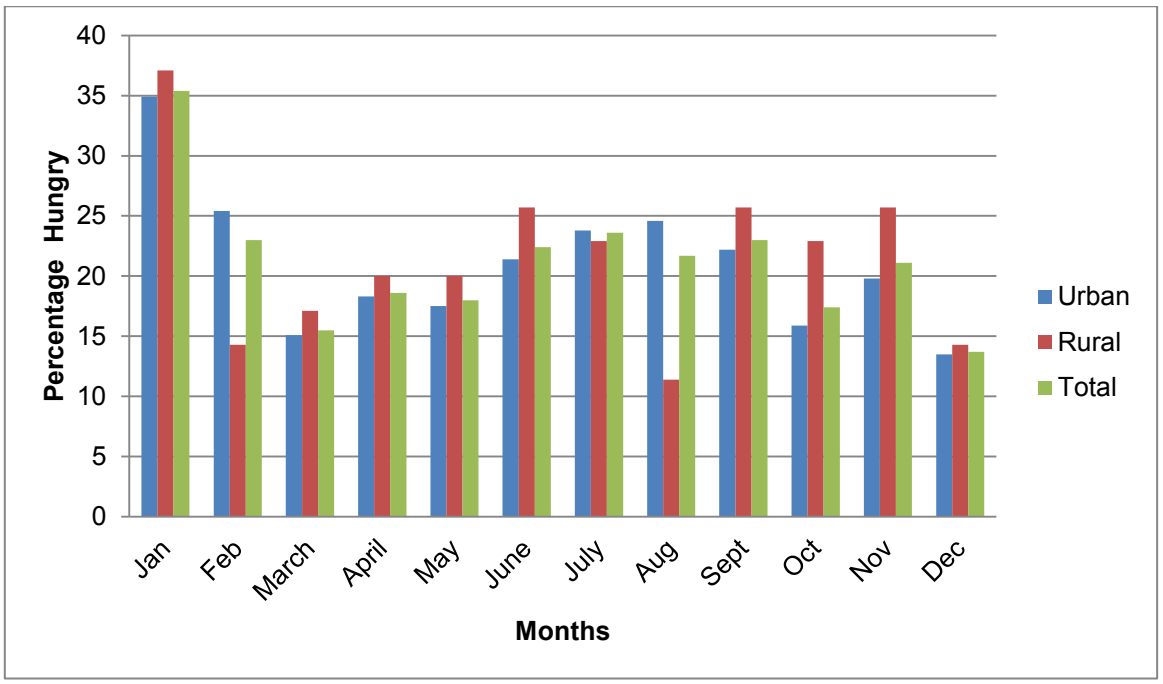


Figure 3.9: Months of the previous year that households in the Blue Crane Route experienced hunger (N = 161)

There was a significant difference between the number of people who experienced hunger in January when compared to December. In the overall study population ($p<0.001$), the urban participants ($p<0.001$) and the rural participants ($p=0.008$) significantly more people experienced hunger in January when compared to December. This analysis was done using the McNemar's chi square test for paired binary proportions.

3.2.1.5 Average household income spent on food

One hundred and thirty seven caregivers answered questions regarding household income and all of them reported that they received some form of household income. Twenty-four caregivers (14.9%) were unable to answer questions regarding household income as they did not know what the total household income was. The most common amount of total household income per month was between R1000 to R3000 (58.4%, n = 80), followed by an income of between R3000 to R5000 (20.4%, n = 28) (Table 3.6).

Table 3.6: Monthly income of households in the Blue Crane Route (n = 137)

Household income per month (n = 137)		No income	R100 to R500	R500 to R1000	R1000 to R3000	R3000 to R5000	Over R5000
Urban (n = 105)	%	0.0	2.9	9.5	52.4	21.9	13.3
	n	0	3	10	55	23	14
Rural (n = 32)	%	0.0	3.1	0	78.1	15.6	3.1
	n	0	1	0	25	5	1
Total (n = 137)	%	0.0	2.9	7.3	58.4	20.4	10.9
	n	0	4	10	80	28	15

When asked about the amount of their income they spent on food, 144 caregivers (89.4%) felt comfortable to answer the question. Of them 73.6% (n = 106) were spending between R50 and R250 per week on food for the household. Interestingly, 11.1% (n = 16) reported spending more than R400 per week on food for the household. (Table 3.7)

Table 3.7*:* Weekly income spent on food by households in the Blue Crane Route (n = 144)

Household income spent on food per week		Less than R50	R50 to R100	R100 to R150	R150 to R200	R200 to R250	R250 to R300	R300 to R350	R350 to R400	Over R400
Urban (n=111)	%	2.7	14.4	22.5	15.3	18.0	10.8	2.7	1.8	11.7
	n	3	16	25	17	20	12	3	2	13
Rural (n = 33)	%	0.0	12.1	39.4	15.2	18.2	3.0	0.0	3.0	9.1
	n	0	4	13	5	6	1	0	1	3
Total (n=144)	%	2.1	13.9	26.4	15.3	18.1	9.0	2.1	2.1	11.1
	n	3	20	38	22	26	13	3	3	16

3.2.1.6 Coping mechanisms to prevent food insecurity

Caregivers were asked whether they had to put any coping mechanisms in place to prevent a shortage of food. Fifty seven caregivers (35.4%) reported that they had purchased food on credit at some point in time throughout the past year with 57.9% (n = 33) reporting that they did this for between one and three months, and 31.6% (n = 18) reporting it for between 10 to 12 months of the previous year (Table 3.8 and Figure 3.10).

Table 3.8: Coping mechanisms employed by households in the Blue Crane Route to prevent food insecurity (N = 161)

Coping Mechanisms		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Borrowed food from others	%	31.0	48.6	34.8
	n	39	17	56
Borrowed money from employer to purchase food	%	10.3	42.9	17.4
	n	13	15	28
Took loan out from financial company to buy food	%	13.5	11.4	13.0
	n	17	4	21
Begged for food	%	6.3	28.6	11.2
	n	8	10	18
Had to work for food in kind	%	23.8	25.7	24.2
	n	30	9	39
Received food as a gift	%	30.2	37.1	31.7
	n	38	13	51
Received food parcel / nutritional supplements	%	12.7	2.9	10.6
	n	16	1	17
Purchased food on credit	%	31.0	51.4	35.4
	n	39	18	57
		Urban (n = 126)	**Rural (n = 34)**	**Total (n = 160)**
Had to eat wild food through hunting / gathering	%	0.8	32.4	7.5
	n	1	11	12
		Urban (n = 30)	**Rural (n = 15)**	**Total (n = 45)**
Ate food they grew themselves	%	86.7	93.3	88.9
	n	26	14	40
		Urban (n = 26)	**Rural (n = 13)**	**Total (n = 39)**
Had to buy staple foods as produce from garden was inadequate	%	76.9	76.9	76.9
	n	20	10	30

Please note: Not all caregivers answered every coping mechanism question as not all the questions were relevant to every caregiver (e.g. if they did not have a vegetable garden they were not asked about food they grew themselves)

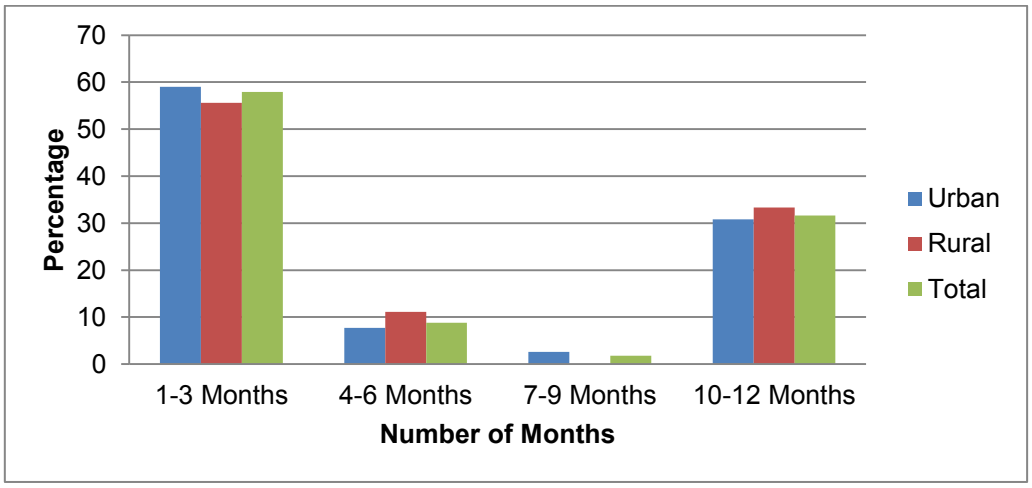


Figure 3.10: Number of months in the previous year that purchasing food on credit was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 57)

In terms of the data reflected in Figure 3.11, fifty six caregivers (34.8%) reported that they borrowed or received food from others, and this most commonly occurred for one to three months of the year (64.3%, n = 36). Thirty nine caregivers (24.2%) reported working for food in kind, although 74.4% (n = 29) of them only did this for between one and three months of the year (Figure 3.12). Gifts of food from neighbours or family were quite commonly reported by 51 (31.7%) caregivers (Figure 3.13). Again, this only occurred for one to three months of the year (64.0%, n = 32). A small number of caregivers (10.6%, n = 17) reported receiving a food parcel (43.8%, n = 7) for one to three months and the same number for 10 to 12 months (Figure 3.14 and Table 3.8).

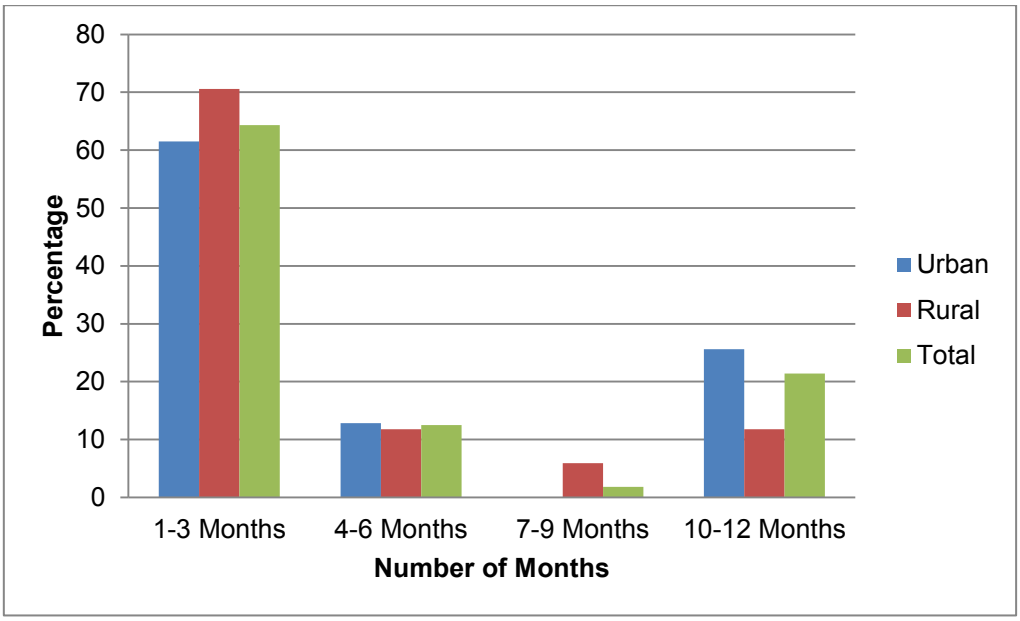


Figure 3.11: Number of months in the previous year that borrowing food from others was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 56)

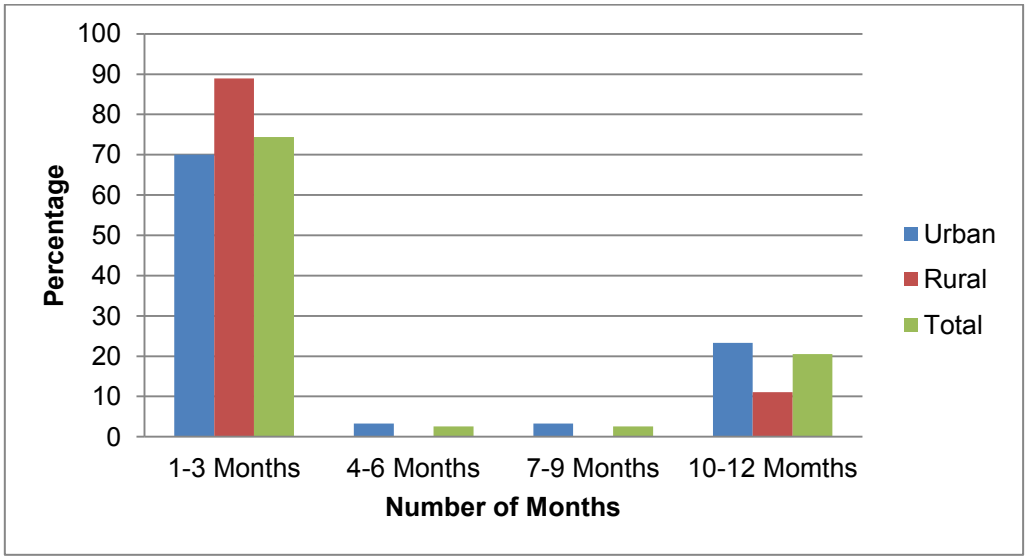


Figure 3.12: Number of months in the previous year that working for food in kind was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 39)

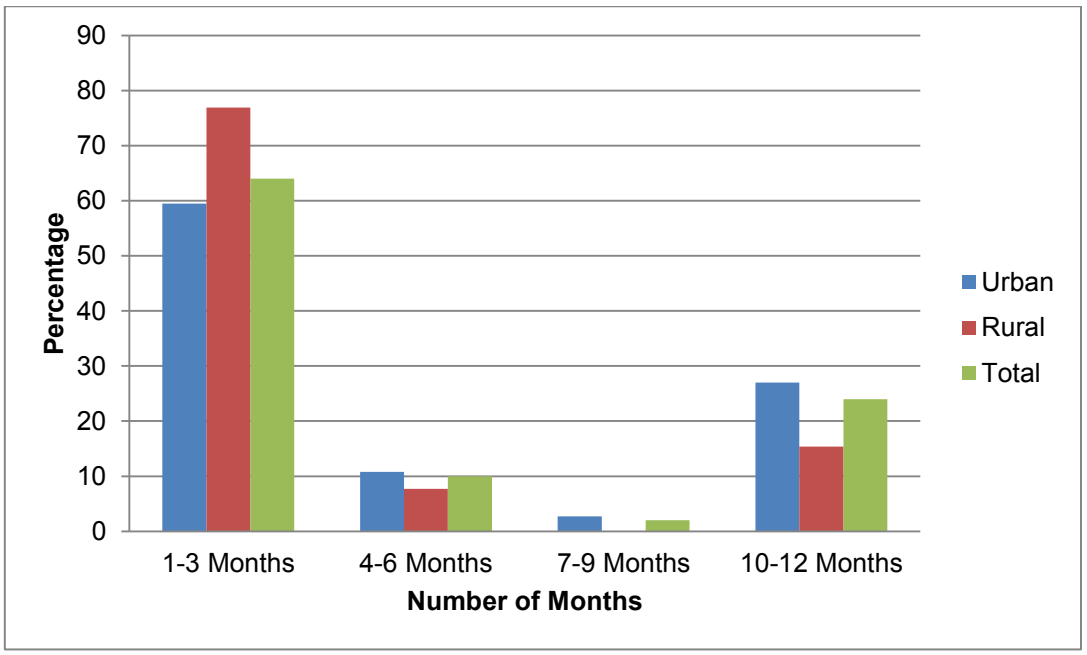


Figure 3.13: Number of months in the previous year that receiving food as a gift was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 50)

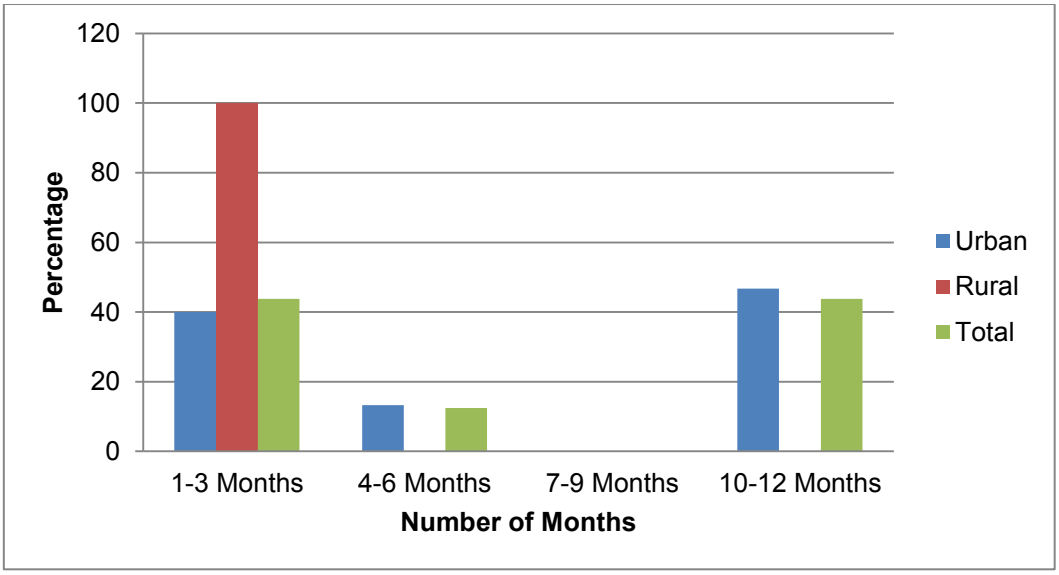


Figure 3.14: Number of months in the previous year that receiving a food parcel or nutritional supplements was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 16)

Twenty-eight caregivers (17.4%) borrowed money from an employer to purchase food, although this did not occur regularly as 78.6% (n = 22) of them reported doing this for between one to three months of the year (Figure 3.15). Taking out a loan to buy food from a financial company (Figure 3.16), and begging for food (Figure 3.17) were not common with 21 caregivers (13.0%); and 18 (11.2%) doing this respectively. The majority of them only did this for between one and three months of the year (61.9%, n = 12; and 66.7%; n = 12 respectively) (Table 3.8).

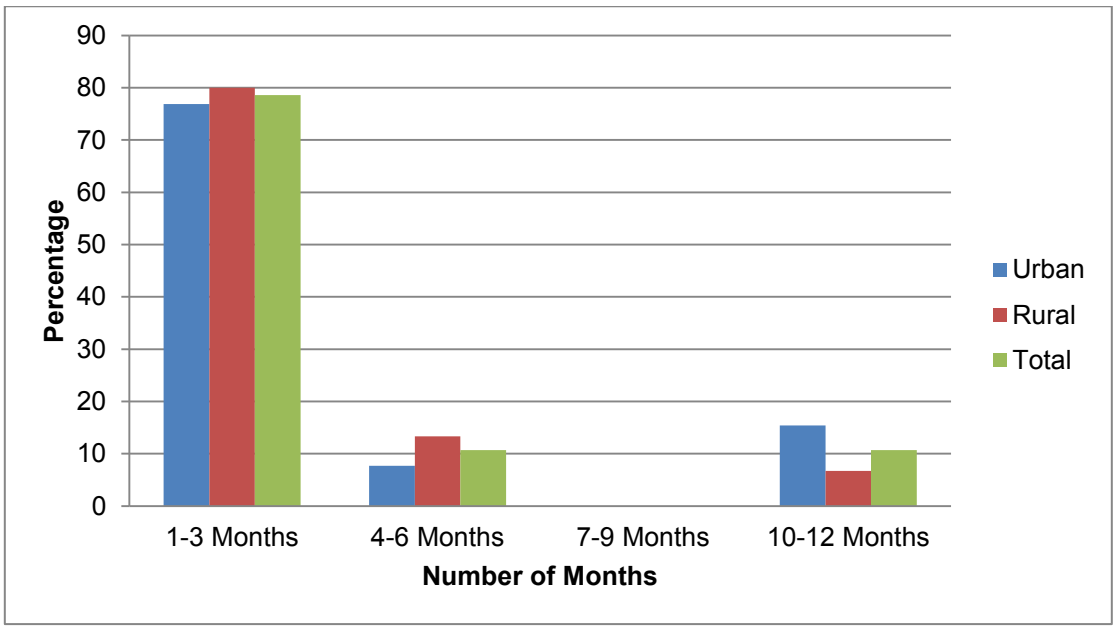


Figure 3.15: Number of months in the previous year that borrowing money from the employer to purchase food was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 28)

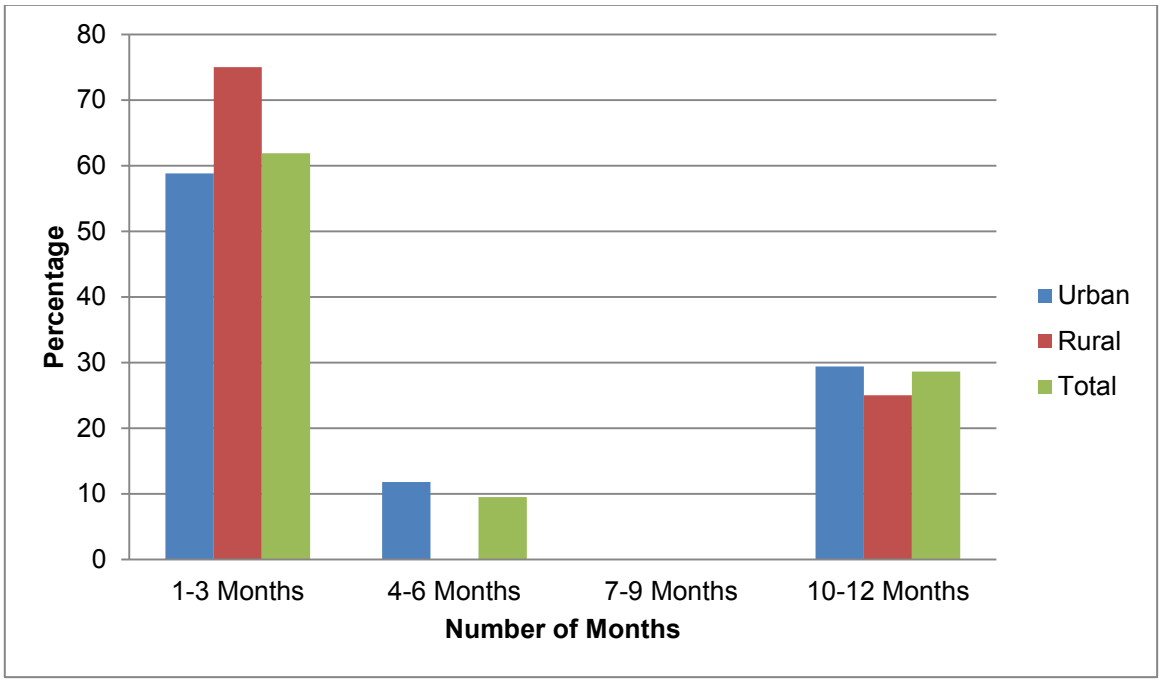


Figure 3.16: Number of months in the previous year that taking out a loan from a financial company to buy food was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 21)

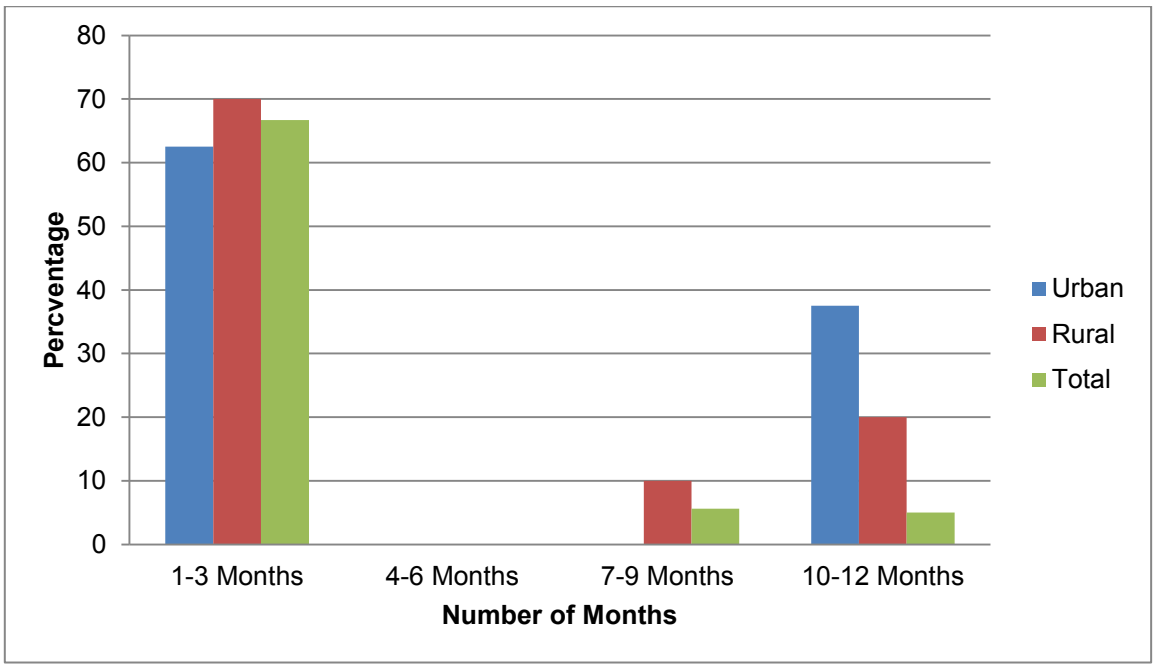


Figure 3.17: Number of months in the previous year that begging for food was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 18)

Thirty (76.9%) of the caregivers reported that they had to buy staple foods instead of growing them (this was only asked to caregivers who usually grew their own staples, n = 39), and of those 43.3% (n = 13) had to do this for between 10 and 12 months of the year (Figure 3.18). Forty caregivers (88.9% of the 45 who answered this question) reported that they ate food they grew themselves (Figure 3.19 and Table 3.8).

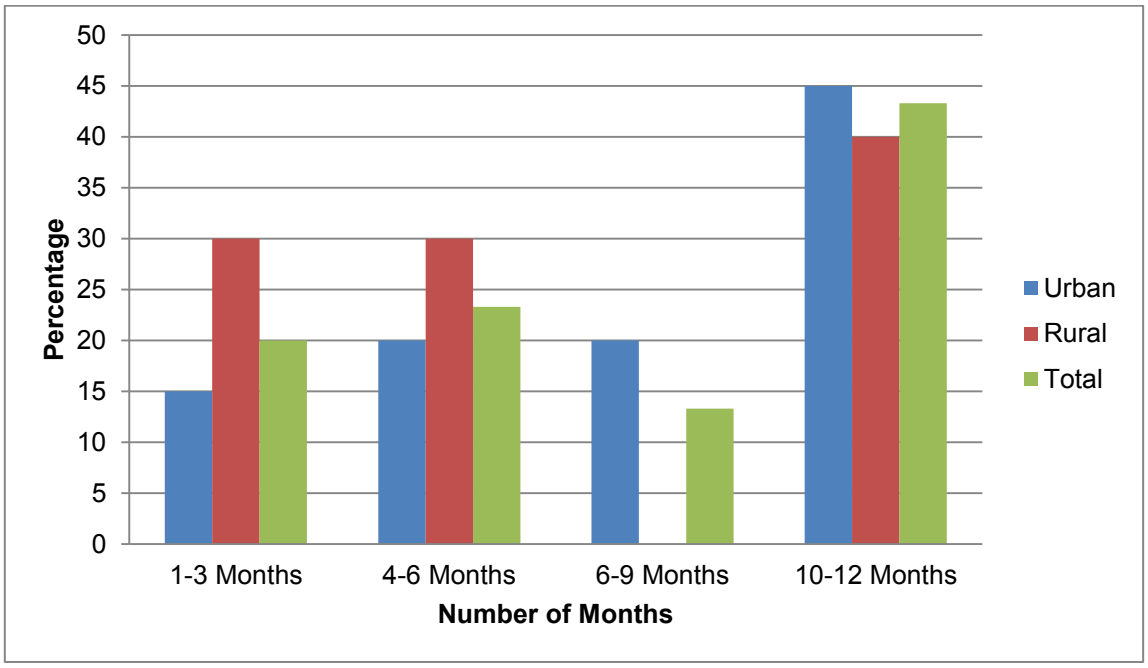


Figure 3.18: Number of months in the previous year that buying staple food (as produce from the garden was inadequate) was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 30)

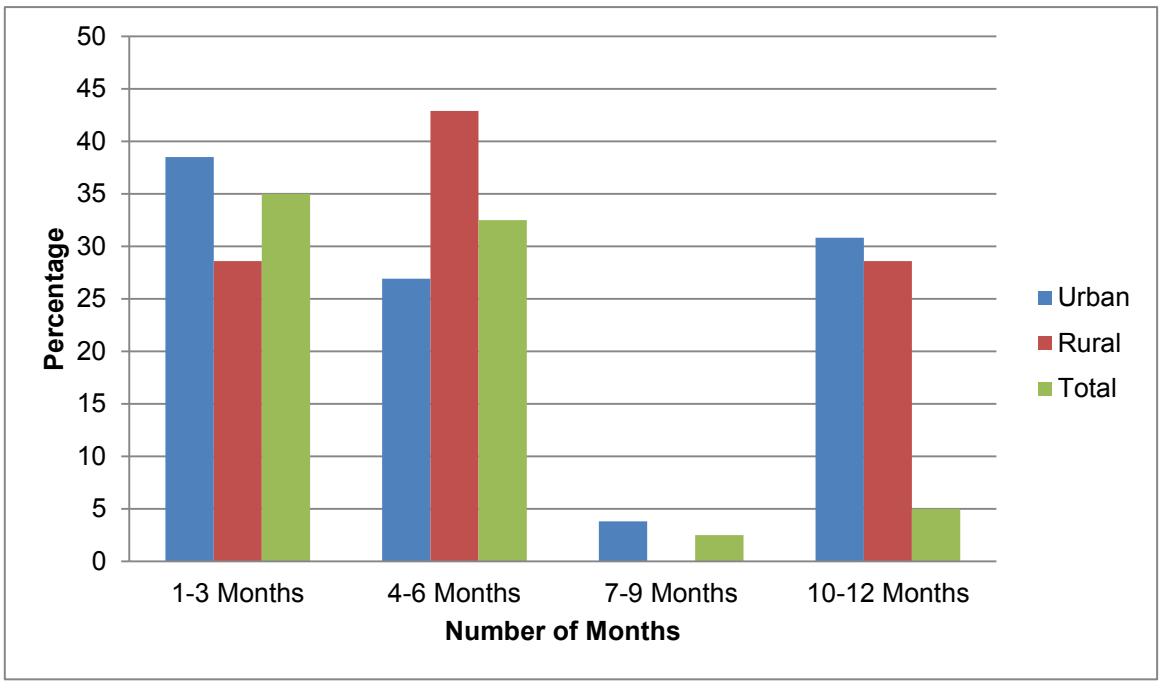


Figure 3.19: Number of months in the previous year that eating food they had grown themselves was employed as a coping strategy in caregiver households in the Blue Crane Route (n = 40)

Some comments made by caregivers during the open-ended questions indicated that coping mechanisms that were being put in place included: “people often run out of food a week before month end and therefore have to ask for food from neighbours to survive”, “sometimes we only eat rice without even oil or flavourings like curry, sometimes we just eat plain mpokoko [maize porridge]”.

A number of coping mechanisms were seen to occur more frequently in the rural sample than the urban sample. The rural caregivers more frequently relied on borrowing money from the employer (42.9%, n = 15) compared to the urban caregivers (10.3%, n = 13). The same was seen for rural caregivers concerning begging and purchasing food on credit (28.6%, n = 10; and 51.4%, n = 18 respectively) compared to the urban caregivers (6.3%, n = 8; and 31.0%, n = 39 respectively) (Table 3.8).

3.2.1.7 Summary of findings on food insecurity

Seventy seven percent of the sample had been food insecure or at risk of food insecurity at some point in the past month. There was a mean of 2.5 months in the past year where households experienced a shortage of food, and approximately one third of participants had a low dietary diversity. Coping mechanisms, such as borrowing food and purchasing it on credit, had to be put in place by participants to improve their food security.

Caregivers were more likely to go hungry than the children. This was seen in that 41.0% of caregivers and 20.5% of children ate less than three meals per day. Furthermore, more children had a high dietary diversity compared to the caregivers (17.4% compared to 11.8%). Likewise, although not significant, urban participants were more food secure than their rural counterparts. The rural participants also had less dietary diversity and were more likely to need to put coping mechanisms in place.

3.2.2 The relationship between the determinants of and the realisation of the right to adequate food in the study population

As it is not possible to objectively measure the realisation of the right to food with one measurement, the determinants were compared to the level of food security, which is known to relate to the realisation of the right to food.

Two measures were used to differentiate between the level of food security; those that were food insecure or at risk of food insecurity at least one day in the past month, and those that had experienced food insecurity or risk of food insecurity for five or more days within the past 30 days, and were thus experiencing a higher level of food insecurity.

Significant differences were found in the following instances: For more than five times in the past 30 days black children were found to be more food secure (58.5%, n = 48) and less at risk of food insecurity (32.9%, n = 27) than their coloured counterparts (51.9%, n = 31 and 39.2%, n = 41 respectively). Both had similar levels of food insecurity (black 8.5%, n = 7 and coloured 8.9%, n = 7). The Pearson Chi-Square test was done to determine the level of significance ($p = 0.039$). The results were exactly the same for caregivers and their children as their ethnicity was the same. Black caregivers were also significantly more food secure and less at risk for food insecurity than their coloured counterparts. There was no significant difference related to ethnicity when food security level was tested at the less severe level of one or more times in the past month (Table 3.9).

Table 3.9: Determinants affecting the realisation of the right to adequate food compared to food insecurity levels in households in the Blue Crane Route

Determinant	Statistical Findings	
	Food insecure once in the previous month	**Food insecure 5 or more days within the past 30 days**
Child's age[a]	p = 0.734	p = 0.829
Number of children the mother has[a]	p = 0.409	p = 0.430
Number of people living in the household[a]	p = 0.657	p = 0.831
Number of rooms in the household[a]	p = 0.189	p = 0.789
Number of people per room in the household[a]	p = 0.084	p = 0.336
Child's gender[b]	p = 0.730	p = 0.726
Child's ethnicity[b]	p = 0.294	**p = 0.039[#]**
Primary caregiver's ethnicity[b]	p = 0.475	**p = 0.039[#]**
Child's education level[b]	p = 0.406	p = 0.164
Mother's education level[b]	p = 0.098	p = 0.341
Who the household head is[b]	p = 0.310	p = 0.538
Whether or not the mother lives in the same household as the child[b]	p = 0.469	p = 0.782
Source of household water[b]	p = 0.112	p = 0.137
Water safety[b]	p = 0.386	p = 0.591
Type of toilet[#]	p = 0.851	p = 0.639
Number of adults unemployed in the house[a]	p = 0.458	p = 0.295
Amount spend on groceries per week[a]	**p = 0.008[#]**	p = 0.749
Household income per month[a]	**p = 0.004[#]**	**p = 0.015[#]**
Whether or not the child eats the same food as the rest of the family[b]	p = 0.123	p = 0.721

[a] Nonparametric distributed data, Kruskal-Wallis test used
[b] Normally distributed data, Pearson Chi-Square test used
[#] Level of significance $p < 0.05$

Both for once and more than five times in the past 30 days, household income was found to significantly affect whether or not the household was food insecure. The Kruskal-Wallis test was done to determine the level of significance (p = 0.004 and p = 0.015 respectively). The less the household income was per month, the more food insecurity was found in the household. The same results were seen for the amount of money the household spent on groceries per week, but only when food insecurity occurred once in the previous month (p = 0.008). The less spent on groceries, the higher the level of food insecurity (Table 3.9).

Regarding determinants related to the right to adequate food compared to risk of food insecurity, no significant differences were found between the level of food security and any of the other determinants examined in this study (Table 3.9).

3.2.3 The capacity gaps of duty-bearers in the realisation of the right to adequate food in the study population

In this section, capacity gaps of duty-bearers that hinder the realisation of the right to adequate food were investigated using information from both the caregiver questionnaires and the key informant interviews. Poor living conditions, gender discrimination, poor management of the social grant system, inadequate implementation of programmes and policies, a lack of employment opportunities, and inadequate support of agrarian practices, were explored by the participants.

3.2.3.1 Inadequate living conditions as a capacity gap

Living conditions, such as the type of housing, water source and safety of water, ablution facilities and fuel source, impact the realisation of the right to adequate food. Without suitable living conditions one is not able to safely prepare food which is needed for the right to adequate food to be realised.

Within the caregiver study sample 82.6% (n = 133) reported to be residing in brick houses. Only six percent (n = 10) of caregivers reported to be living in prefab, tin, mud or a mixture of brick, tin and wood dwellings. Most commonly, families owned their own households (65.2%, n = 105), with a large number of these being obtained through a government housing subsidy (31.7%, n = 51) (Table 3.10).

Table 3.10: House type and type of home ownership of households in the Blue Crane Route (N = 161)

		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Type of housing (N = 161)				
Brick	%	79.4	94.3	82.6
	n	100	33	133
Brick and tin mixture	%	14.3	0.0	11.2
	n	18	0	18
Prefab/tin/mud/brick, tin and wood mixture	%	6.3	5.7	6.2
	n	8	2	10
Type of home ownership (N = 161)				
Owned and received through government housing subsidy	%	40.5	0.0	31.7
	n	51	0	51
Owned and fully paid off	%	38.9	0.0	30.4
	n	49	0	49
Rented	%	9.5	45.7	17.4
	n	12	16	28
Rent-free (as part of employment contract)	%	0.8	31.4	7.5
	n	1	11	12
Rent-free (not as part of employment contract)	%	8.7	0.0	6.8
	n	11	0	11
Farmer's land	%	0.0	11.4	2.5
	n	0	4	4
Owned and situated on tribal land	%	0.0	8.6	1.9
	n	0	3	3
Owned, but not yet fully paid off	%	1.6	0.0	1.2
	n	2	0	2
Squatting	%	0.0	2.9	0.6
	n	0	1	1

Seventy six percent (75.8%, n = 122) of the caregivers reported that their water source was their own tap (either in their house or garden), despite only one fifth (20.0%, n = 7) of the rural caregivers having their own tap. Twelve percent (11.8%, n = 19) reported getting water from a communal tap. The remaining twelve percent (12.4%, n = 20), who all resided in rural areas, got water from a borehole, river or water tank (Table 3.11).

Table 3.11: Water source, ablution facilities and fuel source of households in the Blue Crane Route (N = 161)

		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Water source (N = 161)				
Own tap (house / garden)	%	91.3	20.0	75.8
	n	115	7	122
Communal tap	%	8.7	22.9	11.8
	n	11	8	19
Borehole	%	0.0	28.6	6.2
	n	0	10	10
River	%	0.0	22.9	5.0
	n	0	8	8
Water tank	%	0.0	5.7	1.2
	n	0	2	2
Clean drinking water (n = 158)				
Clean drinking water	%	83.2	57.6	77.8
	n	104	19	123
Drinking water not clean	%	16.8	42.4	22.2
	n	21	14	35
People or entities identified by caregivers as responsible to provide safe drinking (n = 35)				
Municipality's responsibility	%	76.2	14.3	51.4
	n	16	2	18
Farmer's responsibility	%	0.0	35.7	14.3
	n	0	5	5
Caregiver's own responsibility	%	19.0	0.0	11.4
	n	4	0	4
No one's responsibility	%	0.0	7.1	2.9
	n	0	1	1
Didn't know whose responsibility	%	4.8	42.9	20.0
	n	1	6	7
Ablution facilities (n = 160)				
Flush	%	96.0	23.5	80.6
	n	121	8	129
Pit latrine	%	0.8	41.2	9.4
	n	1	14	15
Bushes	%	0.0	35.3	7.5
	n	0	12	12
Bucket	%	3.2	0.0	2.5
	n	4	0	4
Fuel source (N = 161)				
Electricity	%	89.7	51.4	81.4
	n	113	18	131
Paraffin	%	9.5	2.9	8.1
	n	12	1	13
Open fire	%	0.8	28.6	6.8
	n	1	10	11
Wood / coal stove	%	0.0	17.1	3.7
	n	0	6	6

One hundred and fifty eight caregivers answered a question regarding whether or not they thought the drinking water was clean (the other three did not know). The minority (22.2%, n = 35) reported that they did not think the water was clean. Rural caregivers (42.4%, n =14) were more concerned with the water quality than their urban counterparts (16.8%, n = 21) (Table 3.11).

Of the caregivers who did not think the drinking water was clean (n = 35), 51.4% (n = 18) thought the municipality was responsible for providing safe drinking water, whilst 14.3% (n = 5) felt it was the farmers responsibility and 11.4% (n = 4) thought it was their own responsibility. Three percent (2.9%, n = 1) thought that no one should be responsible for trying to change the quality of the drinking water. Much fewer (14.3%, n = 2) of the rural caregivers compared to the urban caregivers (76.2%, n = 16) identified the municipality as being responsible for the provision of clean water (Table 3.11*).*

When asked about the type of ablution facilities available, the majority of caregivers (80.6%; n = 129) reported using a flush toilet, although only a quarter of the rural caregivers (23.5%, n = 8) had flush toilets. A small number (3.2%, n= 4) of caregivers living in urban areas used a bucket. Caregivers living on farms (76.5%, n = 26) reported using a pit latrine or the bushes (Table 3.11).

Eighty one percent (n = 131) of the caregivers reported using electricity most frequently as a fuel source for cooking, whilst eight percent (n = 13) used paraffin. Forty six percent (n = 16) of the caregivers living in rural areas used an open fire or a wood or coal stove. None reported using gas (Table 3.11).

3.2.3.2 Gender discrimination as a capacity gap

Households (n = 158) were more commonly found to be headed by men (62.7%, n = 99) than woman within the caregiver study sample. However, this was found to a much greater extent in the rural sample where only 11.4% (n = 4) of household heads were female, compared to 44.7% (n = 55) in the urban sample (Table 3.12).

Table 3.12: Gender of Household Head in the Blue Crane Route (n = 158)

Gender		Urban (n = 123)	Rural (n = 35)	Total (n = 158)
Male headed households	**%**	55.3	88.6	62.7
	n	68	31	99
Female headed households	**%**	44.7	11.4	37.3
	n	55	4	59

One hundred and twenty five caregivers (77.6%) felt comfortable answering questions about employment differences between men and women. Only 15.2% (n = 19) reported that men and women had equal job opportunities, whilst 19.2% (n = 24) felt that women had more opportunities and 65.6% (n = 82) thought that men had more opportunities to find work.

In terms of salary equity, 107 caregivers (66.5%) felt comfortable answering questions, of which 36.4% (n = 39) reported that both men and women were paid the same amount for the same job, whilst 59.8% (n = 64) felt men were paid more and 3.7% (n = 4) thought women were paid more.

Contrary to this, the key informants who felt comfortable discussing gender discrimination, did not think it was a problem in the area, or that it impacted the right to adequate food in the area in any way. Key informants struggled to identify programmes specifically aimed at improving the living conditions of women and children in the area. Non-governmental organisation (NGO) programmes that were identified included the Child Welfare's children's home for neglected children, the Hospice that provides feeding parcels and some meals to HIV positive children, other NGOs involved with children, and the local AIDS council that has a forum to discuss issues related to women and children. Government programmes included the Baby Friendly Hospital Initiative, the Saving Mothers Saving Babies programme, the Prevention of Mother to Child Transmission Programme, immunisations, and a women-focused farming project, Vukizenzele, in Pearston.

3.2.3.3 Poor implementation and management of social grants as a capacity gap

In this section, the reliance of the community on social grants, and the perceptions of the caregivers and key informants regarding the effect of the grants and the management of the grants were explored.

An overwhelming number of the caregivers (90.7%, n = 146) received part of their household income from one or more social grant(s). Twelve percent of the caregivers (11.8%, n = 19) reported that their only source of income was through social grants, and that they had no other source of income (Table 3.13*)*.

Table 3.13: Household income from social grants (N = 161)

Households that rely on one or more social grant as a form of income (N =161)				
		Urban (n = 126)	**Rural (n = 35)**	**Total (N = 161)**
Households that rely on social grants for income	%	98.4	62.9	90.7
	n	124	22	146
Households that do not rely on social grants for income	%	1.6	37.1	9.3
	n	2	13	15
Households that receive one or more social grant as their only source of income (N = 161)				
		Urban (n = 126)	**Rural (n = 35)**	**Total (N = 161)**
Households that rely only on social grants as their source of income	%	15.1	0.0	11.8
	n	19	0	19
Households that have other sources of income besides social grants	%	84.9	100.0	88.2
	n	107	35	142

Most households reported to be receiving an income through state child grants (88.8%, n = 143), and 29.2% (n = 47) from the old age pension. Fewer received an income from the disability grant (8.1%, n = 13), foster care grant (2.5%, n = 4) and care dependency grant (1.9%, n = 3). Almost all the urban households (98.4%, n = 124) relied on one or more social grant(s) as a form of income, compared to about two thirds (62.9%, n = 22) of the rural households. None of the rural households relied only on government grants as their sole source of income, compared to 15.1% (n = 19) of urban households that only received an income from grants (Tables 3.13 and 3.14*).*

Table 3.14: Income from social grants (N = 161)

Type of grant			**Urban (n = 126)**	**Rural (n =35)**	**Total (N = 161)**
Child support grant	Number	%	96.8	60.0	88.8
		n	122	21	143
	Mean (/month)		R657.13	R510.47	R635.59
	Range (/month)[a]		R150 – R1780	R280 – R1160	R150 – R1780
Old age pension	Number	%	34.1	11.4	29.2
		n	43	4	47
	Mean (/month)		R1546.98	R1560.00	R1548.09
	Range (/month)[a]		R1200 – R2520	R1200 – R2520	R1200 – R2520
Disability grant	Number	%	9.5	2.9	8.1
		n	12	1	13
	Mean (/month)		R1445.00	R2520.00	R1527.69
	Range (/month)[a]		R1200 – R2520	R2520	R1200 – R2520
Foster care grant	Number	%	3.2	0	2.5
		n	4	0	4
	Mean (/month)		R1200	R0	R1200
	Range (/month)[a]		R800 – R1600	R0	R800 – R1600
Care dependency grant	Number	%	1.6	2.9	1.9
		n	2	1	3
	Mean (/month)		R950.00	R1200.00	R1033.33
	Range (/month)[a]		R700 – R1200	R1200	R700 – R1200

[a] Please note that the range in the amount of money is because some households received a grant for more than one person.

Caregivers were asked in an open-ended question what they thought the government could do to ensure that they and their children had enough food. There were quite a few caregivers who identified that the government was already helping through the social grants they provided, although they did not always feel that the amount provided was adequate. Opinions ranged from "they [the government] have money and can help, there are a lot of people that rely on government grants for an income", to "they [the government] are already giving us the child support grant because we need it, at least we can feed our children with it" and "they [the government] already help with the child grant and pension, they don't need to do more than this".

Although some caregivers commenting on the grant felt content by stating that "I am happy with the amount of money I receive for the child grant, it is enough", there were also quite a few who felt the current amount was inadequate, with comments such as "the child support grant is not enough and the food prices are increasing" and "they [the government] could increase the grant, it isn't enough to feed and clothe the child" being made by caregivers.

Two frustrated caregivers who had previously been receiving a disability grant in the family which had been stopped commented "they [the government] shouldn't stop the disability grant if they give it, they should continue to give it, my husband's grant was stopped but he is still sick" and "my mother's disability grant was stopped and hasn't been started again, even though she can't do anything for herself".

Some caregivers suggested that food parcels should be provided in addition to the state grants. Comments made about food parcels were that "food parcels would help so that the state pension and child grant can be used to pay debts"; "food parcels would help so that she can use the grant money for something else" and "they can provide food parcels once a month, it would really help".

Caregivers commented that there were problems with how the grant money was being used in the community and felt that if it was better managed by individuals, their food security situation would improve. "The child grant is often abused by people on alcohol"; "I often see the child grant being abused by parents buying things for themselves, such as alcohol instead of food for the children"; "there are a lot of people who use the grant money to buy alcohol instead of food; especially the young adults do this"; "a lot of the parents use the child's grant incorrectly, using it to pay debts for themselves" and "I have seen people spending child grants on alcohol and giving the cards [South African Social Security Agency cards] in to the cash loans".

Key informants had mixed feelings regarding the social grants provided by government and how it affects the realisation of the right to adequate food of the community. The general feeling was that some sort of grant was needed to assist the people as they currently were not able to provide for

themselves adequately, but that the way that the current grants were being issued was causing more harm than good. There was concern that the grant system was creating a dependency of the community on the government as they rely on the grant for an income, with one key informant commenting "People are now social grant dependants… instead of being able to create and…be proactive and have their own food security".

All of the key informants felt that the social grants provided by government were at times being abused by the community and were not always achieving the desired effect. The key informants were also concerned that the child grant was not being spent on the children as it should be, but rather seen by the family as an income that could be used for the family's needs and wants. There was a strong perception that the grant was being used to purchase alcohol, clothes, household appliances like televisions and other items for the parents, rather than being used for the children.

> "It's not being used for food security for the child… I actually saw, there were a group of women sitting outside…sitting on the corner there, they were farm workers, and the one was saying 'Met jou kind se one eighty gaan ons 'n lekker paartie hou die naweek' [With your child's one hundred and eighty South African Rand we are going to have a nice party this weekend]". Key Informant

A number of key informants mentioned that the old age grant was regularly used to purchase food for the whole family, not just the pensioner. The grandmother is at times left to care for her grandchildren when the mothers move away to Cape Town for employment, leaving her children in the care of the grandmother. This was helpful for the food security of the family, but had a negative impact on the grandmother or grandfather as they were not getting the full benefit from their pension.

The key informants did however express that where the child grant was being used as it should be, by responsible parents, it was able to improve the quality of life of the children as they had more food to eat and did not go hungry. The key informants were of the opinion that the old age pension and disability grant were more beneficial than the child grant and were doing some good when families were not abusing them.

One of the key informants was even of the opinion that "all the grants are promoting food insecurity", as she perceived the grants to encourage mothers to have more children that they could look after, just to get a bigger income from the child support grant. A number of the other key informants also mentioned that they perceived that the child support grant encouraged women, in particular teenagers, to purposefully have children to receive an income from the child support grant.

Another concern was that the grant recipients themselves were often not in control of how they managed the money. Key informants explained that in times of need, people in the community would go to loan sharks to loan money, and in return, the loan sharks would take possession of the social grant card and decide if, and how much money the person would get monthly, taking as much as sixty percent interest on the loaned amount. This is particularly problematic for those without an education who are unable to keep records or make calculations to realise how much money the loan sharks are taking.

> "It's a vicious cycle, you go in and you fetch the card, you stabilise the person for one, two, three months, and then they go and give the card in again… And that is because they are forced to by circumstances… For maybe a while they will be able to survive, but then due to circumstances they are forced to go and give their card in again, because there isn't food". Key Informant

There was concern that the grant was not being administered by government as it should be and that at times people were not receiving money that they were counting on, or only received part of their grant.

3.2.3.4 Inadequate programme and policy implementation as a capacity gap

Programmes and policies are government's way of taking responsibility for its obligation towards the realisation of the right to adequate food of vulnerable groups. However, if the policies and programmes are not well known or are implemented poorly, they will not achieve much. The national school nutrition programme, the food fortification programme, as well as other programmes and policies were investigated.

3.2.3.4.1 The National School Nutrition Programme

The national school nutrition programme provides free meals to children at schools in areas that have been identified to be low income areas. This programme is implemented by the Department of Basic Education.

Although the majority of children were not yet of school going age, of those who were attending school or crèche (n = 37), 81.1% (n = 30) of the caregivers reported their children receiving a daily meal at school through a school/crèche feeding scheme; whilst 10.8% (n = 4) reported not receiving any meals and 8.1% (n = 3) reported receiving irregular meals.

The key informants who were aware of the National School Nutrition Programme responded positively towards it and said that there were also feeding programmes taking place at many of the crèches in the community. They were of the opinion that the children were getting two nutritious meals per day at school and that the programme was running very well.

> "Yes, the schools are feeding our children… Because sometimes they will come home, there's nothing… At least they did get some, various food[s] at school…It's working well". Key Informant

3.2.3.4.2 The food fortification programme

Choosing fortified foods can improve the quality of dietary intake as fortified staple foods are enriched with essential minerals and vitamins.

Caregivers were shown a picture of the food fortification logo, but unfortunately more than half (57.8%, n = 93) stated that they had never seen the logo before. The remaining 42.2% (n = 68) reported that they had seen it before, but none of them knew what the logo meant. More urban (43.7%, n = 55) than rural (37.1%, n = 37.1%) participants had seen the logo. None of the participants reported looking for the logo on food products when purchasing food.

These findings were also reflected by a key informant who mentioned the food fortification programme. She stated that it was a very good programme, but correctly identified that more community awareness was needed around food fortification, as the community were not aware of it, and because of this, were not looking for fortified products when purchasing foods in the shops. She was the only key informant who mentioned the programme.

3.2.3.4.3 Other policies and programmes

As stated by a key informant, "Nutrition is everyone's… business, but no-one's responsibility". Frustration was expressed that nutrition is highlighted as important over and over again by government, and is an aspect of many programmes, yet the programmes are implemented very poorly and without focus. "Whether we like it or not our policies are politically informed…and they are always aligned to the government of that day" was the opinion of one of the key informants regarding policies and programmes to support food security in the area. Mismanagement of projects and finances were a concern in the Blue Crane Route: "It is just heart-breaking that what is available is not used to its full potential… to really help the people… that really have a need". One key informant felt very frustrated by the lack of involvement of the government and local municipality in improving the food security of the community.

> "The government provided food parcels for the National Youth Development Agency… To the ANC offices! Yes [*laughs*] So they were handed out by the ANC offices… As opposed to a neutral [body]… And of course we have an election coming up, so it is just perfectly in time… And, I mean, how do you decide that the youth are going to get food parcels, for goodness sake." Key Informant

Most key informants were not able to identify policies that were supporting the right to adequate food. However, they did identify programmes that they perceived to be supportive, although they did not always think the programmes were very effective. The programmes identified included the Hospice that is funded by the government and provides food parcels, assistance with home vegetable gardens and nutritional education to ill people within the community and also a number of civil society organisations such as NGOs, local churches, and the ACVV that provided food parcels or soup kitchens to the community. The municipality monitors shops, particularly spaza shops, to check that they are not selling expired products and that the premises are hygienic. They also mentioned the local AIDS Council that is involved in the fight against HIV and AIDS.

The Department of Health programmes mentioned were immunisation campaigns, deworming, health promotion, the integrated nutrition programme (with the nutritional supplementation programme), and mother and child health (including the Baby Friendly Hospital Initiative).

There was concern from one of the key informants that the programmes offered by the Department of Health were not well implemented as the "primary health care system is failing the children" and that those involved in primary health care did not understand the importance of how these programmes impact on children and the community. One of the clinic supervisors did not think there were any programmes that influenced food security, so she was specifically asked whether some clinic based programmes like family planning, antenatal care and immunisations influenced food security, to which she replied "not really".

The key informant from the Department of Agriculture mentioned a home vegetable garden project and a maize production project that were both dependent on the department having an adequate budget to be implemented properly, but that they were run fairly well. An emerging farmer farm ownership project was also mentioned. However, a number of the other key informants were quite negative towards the efficacy of the Department of Agriculture's programmes, particularly the vegetable gardens. One participant commented:

> "You give things out to the communities, you don't make an assessment what impact is these things having in the community, and that's a problem… Not having… that gathering of educating why we are giving you this… It's because we want you to self-sustain in terms of food security… But that is not done." Key Informant

Programmes run by the Department of Social Development, such as food parcels and social grants, were viewed in a negative light by the key informants as they felt they were not implemented or managed very well. Key informants were of the opinion that the government departments did not work well with each other and did not communicate or collaborate well with the other departments. They were of the opinion that a solution would not be found unless there was good cooperation between the various departments and that it would require all the different departments to work together.

A few of the key informants recognised the Millennium Development Goals, particularly the eradication of extreme hunger, as a measure to enforce the realisation of the right to adequate food. One key informant highlighted the UNICEF conceptual framework as a key resource to address the problem.

3.2.3.5 Inadequate employment opportunities as a capacity gap

As reported previously (Section 3.1.1), most commonly, there were two adults in residence in caregiver households, but it ranged between a minimum of one and a maximum of nine. Within the households the mean number of unemployed adults was two. Only 11.2% of the households had no unemployed adults (n = 18), although a larger percentage of the rural households (25.7%, n = 9) than the urban households (7.1%, n = 9) had no unemployed adults (Table 3.15).

Table 3.15: Number of unemployed adults in households (N = 161) in the Blue Crane Route

No of unemployed adults in household		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
0	%	7.1	25.7	11.2
	n	9	9	18
1	%	33.3	57.1	38.5
	n	42	20	62
2	%	38.1	2.9	30.4
	n	48	1	49
3	%	12.7	11.4	12.4
	n	16	4	20
4	%	4.8	2.9	4.3
	n	6	1	7
5	%	2.4	0.0	1.9
	n	3	0	3
6	%	0.8	0.0	0.6
	n	1	0	1
7	%	0.0	0.0	0.0
	n	0	0	0
8	%	0.8	0.0	0.6
	n	1	0	1

Reasons for unemployment in the households (n = 143) included a lack of work opportunities (60.1%, n = 86), receiving an income from social grants (old age pension, disability and child care) (32.9%, n = 47), needing to stay at home to care for the family (25.9%, n = 37), being in poor health (16.1%, n = 23), still studying (9.8%, n = 14), and not wanting to work (2.8%, n = 4) (Table 3.16).

Table 3.16: Reasons given by caregivers for unemployed adults in households (n = 143) in the Blue Crane Route

Reasons that adults are unemployed in the household		Urban (n = 117)	Rural (n = 26)	Total (n = 143)
Lack of work opportunities	%	60.7	57.7	60.1
	n	71	15	86
Receive an income from a social grant (old age / disability / child care)	%	36.8	15.4	32.9
	n	43	4	47
Poor health preventing ability to work	%	17.1	11.5	16.1
	n	20	3	23
No desire to work	%	2.6	3.8	2.8
	n	3	1	4
Caring for the family	%	28.2	15.4	25.9
	n	33	4	37
Still studying	%	10.3	7.7	9.8
	n	12	2	14

*Please note that these options do not add up to 100% as caregivers gave more than one reason for unemployment in their households

In an open-ended question some caregivers mentioned unemployment and a lack of income as an area where the government could provide assistance, and felt that the government “have the ability to create jobs” and that “if the government helps we will be able to get better jobs”. Caregivers suggested that government “improve job opportunities”; “create jobs and employ people in permanent positions”; and “increase the salaries of people working”.

All of the caregivers felt it was important that their children attend school and get a good education. They made comments such as “I didn’t have the opportunity to finish school and am now unemployed, I don’t want that to happen to my children”; and “children need to be educated in order to get a proper job one day”.

At the end of the questionnaire caregivers were asked if there was anything else they would like to add regarding the food situation in the community. Whilst five caregivers commented that there were no problems with statements such as “people do have access to food and are able to afford healthy food”, 44 of the caregivers (27.3%) highlighted again that there was not enough food in the community due to poor income and unemployment. They commented “many people are unable to afford healthy food because they don’t have enough money”, “most people are unemployed and can’t provide for their families”, and “with a lack of jobs it’s not always easy to ensure that people eat enough of the correct food”.

A key informant employed by the local municipality reported that there were a lot of complaints from the community regarding the high level of unemployment, but that the municipality was already doing a fair amount and that the people needed to do more to take responsibility for themselves.

> “Our mind is centred in thinking that the municipality is the only institution that can create jobs for them, which is not the case. We are also there to create opportunities for people to make them self-employed… But they are not taking those opportunities”. Key Informant

There was also a perception that the youth are lazy with the comment made “…[the youth] have taken a back seat in taking ownership of their livelihoods”. There was a strong focus from the municipality’s key informant towards encouraging the youth to form cooperatives, although he perceived that there was a lot of resistance from the community who did not want to do that.

However, quite a few of the other key informants felt that there were very few employment opportunities available in the area for people, which made finding any sort of employment very difficult.

3.2.3.6 Inadequate support of agrarian practices as a capacity gap

During the caregiver interviews, it was discovered that the majority of participants did not have any vegetable gardens or livestock (69.6%, n = 112). The lack of agricultural practices was more prevalent in the urban sample (73.0%, n = 92) than the rural sample (57.1%, n = 20), although the numbers in both groups were high (Table 3.17).

Table 3.17: Prevalence of home agricultural practices in caregiver households (N = 161) in the Blue Crane Route

Prevalence of agricultural practices in household		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
No vegetables or livestock kept for household	%	73.0	57.1	69.6
	n	92	20	112
Household only grows vegetables	%	20.6	20.0	20.5
	n	26	7	33
Household grows vegetables and keeps livestock	%	4.8	17.1	7.5
	n	6	6	12
Household only keeps livestock	%	1.6	5.7	2.5
	n	2	2	4

Seventy-seven percent (77.6%) of participants (n = 125) stated that they had access to a garden for growing vegetables, and 85.1% (n = 137) had access to water for irrigation. Interestingly, more urban participants (83.3%, n = 105) than rural participants (57.1%, n = 20) indicated that they had access to a garden to grow vegetables (Table 3.18).

Table 3.18: Access to resources that enable home agricultural practices in caregiver households (N = 161) in the Blue Crane Route

Access to resources that enable agricultural practices		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Access to a garden or small plot	%	83.3	57.1	77.6
	n	105	20	125
Access to a field for cultivation	%	17.5	25.7	19.3
	n	22	9	31
Access to grazing land	%	8.7	22.9	11.8
	n	11	8	19
Access to water for irrigation	%	89.7	68.6	85.1
	n	113	24	137
Access to a market place to sell produce or stock	%	28.6	25.7	28.0
	n	36	9	45
Access to a market place to buy agricultural supplies	%	58.7	54.3	57.8
	n	74	19	93

A number of reasons given for not using the land intensively for food production were provided by 112 caregivers, as the others either used all their land or did not have any land. Caregivers

reported that they did not grow produce due to a lack of seeds (38.4%, n = 43), as they did not have money to purchase supplies (28.6%, n = 32), or there was a lack of labour (21.4%, n = 24), a problem with pests (21.4%, n = 24), a lack of fertiliser (19.6%, n = 22), and a lack of knowledge of agricultural practices (17.0%, n = 19). Additionally, household members were found to be too young, old or weak (23.2%, n = 26) (Table 3.19).

Table 3.19: Reasons that land is not used intensively for food production in caregiver households (n = 112) in the Blue Crane Route

Reason land is not used intensively for food production		Urban (n = 98)	Rural (n = 14)	Total (n = 112)
Land not used because of a lack of seeds	%	35.7	57.1	38.4
	n	35	8	43
Land not used because there is too little money to buy farming supplies	%	26.9	21.4	28.6
	n	29	3	32
Land not used because the people in the household are too young, old or weak to work	%	25.5	7.1	23.2
	n	25	1	26
Land not used because of a lack of labour	%	22.4	14.3	21.4
	n	22	2	24
Land not used because of a problem with pests	%	24.5	0.0	21.4
	n	24	0	24
Land not used because of a lack of fertiliser	%	21.4	7.1	19.6
	n	21	1	22
Land not used because of a lack of knowledge of agricultural practices	%	18.4	7.1	17.0
	n	18	1	19
Land not used because the household buys food, so they do not need to grow it	%	12.2	14.3	12.5
	n	12	2	14
There is no fence around the garden to protect it from animals or theft	%	12.2	0.0	10.7
	n	12	0	12
Land not used because of a lack of water	%	8.2	7.1	8.0
	n	8	1	9
Land not used because the household is not interested in using it	%	9.2	0.0	8.0
	n	9	0	9
Land not used because it is rented out instead	%	5.1	7.1	5.4
	n	5	1	6
Land is not fully utilised because it is too big to use it all	%	6.1	0.0	5.4
	n	6	0	6

Please note: Participants who didn't have any land to use, or who used all their land did not answer this question

Of the caregivers that had either a vegetable garden or livestock (30.4%, n = 49), eating the food was the main reason it was produced. Of these, all of the rural caregivers (100.0%, n = 15), and almost all (97.1%, n = 33) of the urban caregivers, produced food to eat. One urban caregiver reported producing food for the main purpose of selling it.

Key informants discussed vegetable gardens in the community and reasons why they were not regularly seen. Problems identified were similar to those identified by the primary caregivers. The key informants reported that water was expensive, or unavailable to those living in informal settlements, that seeds cost money which one does not have if living in poverty, that there is a lack of knowledge on how to grow vegetables and that education is needed, that theft of vegetables was a problem for those that had a vegetable garden, and inadequate fencing meant animals could not be kept out of the gardens. One key informant commented:

> "The problem revolves around unemployment and poverty, because even if you are to grow your own vegetables, you must have money to buy the seeds, you have to water that garden, you have to pay for that water, not so?... So, ok, these problems of poverty, or inadequate food supplies, and so on, or hunger, emanates from some of us… not having enough financial resources". Key Informant

A dependency on social grants and as a result, an unwillingness to take their own initiative, was also identified by key informants as a reason why people did not make an effort to grow their own vegetables.

3.2.4 Perceptions of the primary caregivers in the study population regarding the actions required to realise the right to adequate food

When questioned, three quarters (74.5%; n = 120) of the caregivers reported that they had heard of human rights. Of those, almost all of them (98.3%; n = 118) stated that it was a human right to have adequate food when asked whether or not they thought it was a human right.

Certain actions were identified by the caregivers that could improve the realisation to the right to adequate food. They have been discussed as actions that the primary caregivers can take themselves, actions that the caregivers' families can take and actions that the State can take to improve the realisation of the right to adequate food.

3.2.4.1 Actions that the primary caregivers can take themselves to improve their realisation of the right to adequate food

The majority of caregivers (74.5%, n = 120) felt they were not in a position to do anything more themselves than they were currently doing to improve the food security of their children. A fair number of them (16.8%, n = 27) thought that if they could find employment, they would be able to better care for the food needs of their children. Few (4.3%, n = 7) felt that they should make a

bigger effort to spend their money more wisely and not waste the food they had available to them (Table 3.20).

Table 3.20: Actions identified by caregivers that they can take to improve their households' food security situation (N = 161)

Actions to improve households' food security situation		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Not in the position to do anything more themselves	%	69.8	91.4	74.5
	n	88	32	120
Find employment	%	21.4	0.0	16.8
	n	27	0	27
Spend money more wisely and not waste food	%	4.8	2.9	4.3
	n	6	1	7
Continue to work	%	1.6	2.9	1.9
	n	2	1	3
Plant a vegetable garden	%	1.6	0.0	1.2
	n	2	0	2
Get an ID to apply for a child grant	%	0.0	2.9	0.6
	n	0	1	1
Stop abusing alcohol	%	0.8	0.0	0.6
	n	1	0	1

3.2.4.2 Actions that the family can take to improve the realisation of the right to adequate food

When caregivers were asked who else they thought should be involved in helping to ensure that they and their children have enough food to eat, the majority of the caregivers felt that their families should assist them in this regard (71.4%, n = 115) (Figure 3.20).

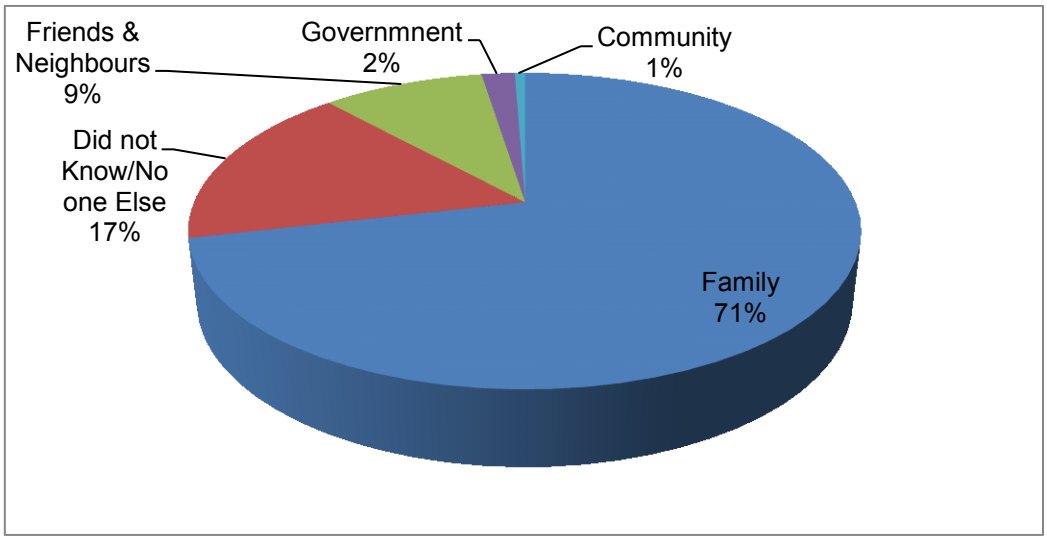


Figure 3.20: People or entities identified by caregivers (N = 161) residing in the Blue Crane Route as being able to assist them to realise their right to adequate food

Of those that felt it should be the family's responsibility to help, 38.3% (n = 44) reported that besides the primary caregiver it was also the child's father's responsibility, followed by the grandmother's responsibility (18.3%, n = 21) to assist with ensuring that the family had enough food to eat. The rest reported other members of the family as being responsible (Table 3.21).

Table 3.21: People or entities identified by caregivers as being able to assist them to realise their right to adequate food (N = 161)

Person or entity		Urban (n = 126)	Rural (n = 35)	Total (N = 161)
Family	%	69.8	77.1	71.4
	n	88	27	115
Father	%	36.4	44.4	38.3
	n	32	12	44
Grandmother	%	19.3	14.8	18.3
	n	17	4	21
Aunt	%	12.5	18.5	13.9
	n	11	5	16
Grandfather	%	10.2	11.1	10.4
	n	9	3	12
Mother	%	8.0	0.0	6.1
	n	7	0	7
Both grandparents	%	4.5	3.7	4.3
	n	4	1	5
Whole family	%	5.7	0.0	4.3
	n	5	0	5
Uncle	%	2.3	7.4	3.5
	n	2	2	4
Both parents	%	1.1	0.0	0.9
	n	1	0	1
Didn't know / no one else responsible	%	17.5	14.3	16.8
	n	22	5	27
Friends and neighbours	%	9.5	8.6	9.3
	n	12	3	15
Government / government department	%	2.4	0.0	1.9
	n	3	0	3
Whole community	%	0.8	0.0	0.6
	n	1	0	1

The caregivers were asked how they thought the people they had identified could assist them. All of the caregivers who had identified their friends or neighbours as sources of help (n = 15) said that they could assist them financially by either providing food or money to help them when they were struggling, although many of the caregivers implied in their answers that this was already being done and should be continued (Figure 3.20, Table 3.21).

Those that identified their families as a support structure (n = 115) suggested a number of methods that their family could employ to assist them: 53.0% (n = 61) recommended their family could assist them by providing food or money, 33.9% (n = 39) felt that their family members could either

continue to work or find a job so that they could give financial support, and 5.2% (n = 6) thought their family should save money so that there would be money available in times of need. Interestingly, 3.5% (n = 4) of those that suggested their families should assist them, said that they did not know how their families could do this (Table 3.22).

Table 3.22: Ways that the family can act as a support structure as identified by the primary caregiver (n = 115)

Ways the family can act as a support structure		Urban (n = 88)	Rural (n = 27)	Total (n = 115)
Assist by providing food or money	%	56.8	40.7	53.0
	n	50	11	61
Provide financial support by working	%	34.1	33.3	33.9
	n	30	9	39
Save money for times of need	%	5.7	3.7	5.2
	n	5	1	6
Loan money for food	%	2.3	7.4	3.5
	n	2	2	4
Spending time caring for the child	%	3.4	0.0%	2.6
	n	3	0	3
Stop abusing alcohol	%	2.3	0.0	1.7
	n	2	0	2
Use old age pension to feed child	%	1.1	0.0	0.9
	n	1	0	1
Did not know	%	0.0	14.8	3.5
	n	0	4	4

Please note: Some participants gave more than one answer, thus answers do not add up to 100%

3.2.4.3 Actions that the State can take to improve the realisation of the right to adequate food

Very few of the caregivers (1.9%, n = 3) considered the government or a government department as an option when asked who else they thought should be involved in helping to ensure that they and their children have enough food (Table 3.21). Two suggested that the government could provide food parcels, one recommended they assist with education and another requested that social workers monitor the living conditions of households.

Caregivers (n = 161) were then specifically asked whether or not they thought that the government should do something to ensure that they and their child have enough food to eat. The majority of the caregivers (70.8%, n = 114) responded that they did indeed think the government was responsible, with one caregiver stating “it is their responsibility to make sure people do have enough food”. One fifth (21.1%, n = 34) of the caregivers did not think the government needed to be making any efforts to ensure they had enough food to eat, whilst 8.1% (n = 13) did not know whether or not the government had any responsibility towards them (Figure 3.21*).*

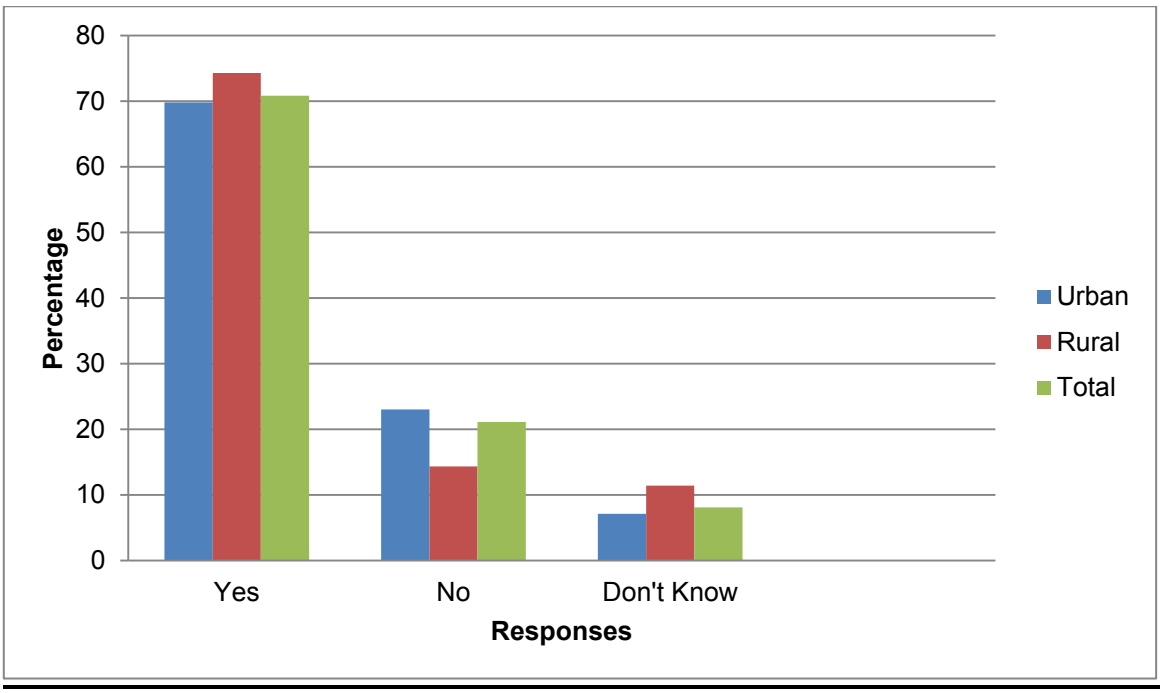


Figure 3.21: Caregivers response (N = 161) as to whether or not the government should do something to ensure their family has enough food to eat

When caregivers were asked in an open-ended question what they thought the government could do to ensure that they and their child had enough food (106 participants answered this question, and some gave more than one option), the main themes that came through in the caregivers recommendations were food parcels (43.4%, n = 46), to continue giving or increase the amount of money given through grants (28.3%, n = 30), and to create employment opportunities (25.5%, n = 27). Some caregivers (9.4%, n = 10) felt that the government should monitor people's living circumstances and assist when necessary.

There was a strong feeling amongst those that reported that the government should help, that they were in need of assistance, as they were struggling and that the government would be able to help them. Some reasons given in the open-ended question were "the government needs to assist people who cannot afford to provide for their families", "some of us have nothing in the house and then they must help", "people need assistance in providing for their families" and "lots of people are struggling and don't have enough to eat". Some interesting reasons were given by those that felt that the government should assist them: "I've heard on the radio that the government must help to provide food to the people, but the money they give is too little", "they should help as I am a citizen of South Africa" simply "because they are the government", and one caregiver even felt that "there is nothing the government is doing for them".

The opinion of those that did not think the government was responsible for them, was generally that they should look after themselves and work to earn an income. Answers ranged from "I work and I plan well to ensure my family has enough" to "we must be responsible ourselves, we should try to create our own jobs" to "it is not the responsibility of government to ensure people do have food". One of the people who answered that it was not the government's responsibility, said it was because she had learnt not to rely on the government as they do not keep their promises.

3.2.5 Perceptions of the key informants within the community regarding the realisation of the right to adequate food of the study population

During the in-depth key informant interviews, the eleven key informants discussed their perceptions regarding the level of the realisation of the right to adequate food within the study population.

Key informants were asked what their understanding of the terms food security, and the right to adequate food were. Very few key informants had a good understanding of these terms and some were unwilling to attempt to define their understanding of the terms. Only three were able to correctly define them. One key informant understood the right to adequate food to simply mean that one needs to have at least one proper meal per day.

3.2.5.1 The right to adequate food is not fully realised by all in the Blue Crane Route

The majority of the key informants perceived there was a problem with hunger within the Blue Crane Route, and were regularly exposed to people that were hungry. They commonly came across people who needed food parcels and unemployed persons who did not have enough money to buy food. Comments made by key informants were that "A lot of people go to bed hungry, I really do believe that. There are many families that are living basically just on the child grant", "the need for food is really a reality" and "there are households that are food insecured".

After key informants had discussed the hunger situation in the Blue Crane Route, it was taken a step further to investigate their perceptions regarding food security in the area. Again, the majority of the key informants felt that food insecurity was an on-going problem within the community. Opinions that the key informants had were that food in the area was not of a good quality, access to shops where the community could purchase a variety of quality foods were far away from most people's homes, at times there was an inadequate amount of food in the home, and the nutritional value of the food consumed was not meeting the nutritional requirements of the people. However in contrast to the mentioned opinions, the key informant from the Agricultural Association did not perceive hunger or food insecurity to be a problem on the farms.

3.2.5.2 Persons and institutions responsible for inhibiting the full realisation of the right to adequate food in the Blue Crane Route

Key informants were asked who they thought was responsible to improve the realisation of the right to adequate food for people living in the Blue Crane Route. The key informants struggled to answer this question, but did identify both the State and the community themselves as responsible.

3.2.5.2.1 The State as duty-bearer

State entities identified by the key informants that could improve the realisation of the right to adequate food, included the Department of Health and the Department of Social Development, as well as the local municipality, including ward councillors who could link the various government departments with the community.

As problems within State departments that are inhibiting the full realisation of the right to adequate food have already been discussed elsewhere, they will not be discussed here again. Refer to Section 4.2.3 regarding capacity gaps of duty-bearers that explores inadequate programme and policy implementation by the State, inadequate employment opportunities and inadequate support of agrarian practices, for more information.

3.2.5.2.2 The community as right holders

Key informants discussed what their views were regarding the responsibilities of the right holders to improve their realisation of the right to adequate food. They were of the opinion that the community themselves were hampering their own realisation of the right to adequate food.

> "The individual themselves has got to take some kind of responsibility… You can provide whatever you like, but if they are not listening they will never have food security… They won't! [*aggressive tone*]" Key Informant

Reasons provided ranged from a lack of education, a dependency on the social grant system, spending their money irresponsibly, to an alcoholism problem within the community. Key informants went as far as to say that people were lazy and did not want to put any effort into changing their situation. It was perceived that the community needed to have a responsibility towards their own realisation of the right to adequate food by looking for initiatives such a growing a home vegetable garden, actively pursuing employment opportunities, ensuring good education for their children and not blaming other people for their situation.

However, there was also a sense that it was quite difficult for people to take responsibility for their situation when they were living in a hopeless situation of poverty and unable to break out of it. A comment was made by one key informant:

> "It's clear that there are rights to adequate food… all those things. But people don't actually know their rights in terms of human nutrition. They don't know that they've got policies and laws". Key Informant

A coping strategy key informants identified amongst the community members was that many people were willing to share with one another, especially if their neighbour's children did not have food to eat and they had some to spare.

3.2.6 Comparison of the determinants to the realisation of the right to adequate food between the rural (people living on farms) and urban (people living in towns) sample groups within the study area

Many differences between the urban and rural children and caregivers have been discussed throughout the previous sections of this chapter, and will thus not be repeated here. What can be noted is that although the rural sample was found to be more food insecure than the urban sample, the difference was not significant. The rural participants had less dietary diversity, and had to employ more coping mechanisms. However, urban participants relied more heavily on social grants than their rural counterparts.

What have not yet been reported is the key informants' perceptions of differences between the rural and urban populations. Not all of the key informants felt qualified to comment on this. Of those that did, the general feeling was that the people living on farms had better realisation of their right to adequate food. Reasons being that key informants felt more people living in rural areas had vegetable gardens, chickens and fresh milk; that they received assistance from the farmers when needed and that they had an income in the house due to a household member being employed on the farm, especially since the minimum wage for farm workers had recently increased. However, they also reported that there was less access to a variety of food available on the farms. One key informant suggested that those living in rural areas are less likely to spend their money on alcohol, as they do not have ready access to it, and thus rather use their income on food which improves their food security. One concern that came up was the education level of those living in rural areas, as schooling is not easily accessible and learners have to travel far to school. This could have a negative impact on their realisation of the right to adequate food.

Chapter 4: Discussion

This chapter consists of an in-depth discussion on the findings of this study and compares the results found to existing research on the topic of the right to adequate food. This will be done by looking at each of the study objectives separately.

First, the realisation of the right to adequate food in the caregiver study population will be discussed using the level of food security where after the relationship between the determinants of and the realisation of the right to adequate food in the study population will be discussed. Capacity gaps of duty-bearers that were identified will be examined and this will be followed by a section on the actions required to realise the right to adequate food as perceived by the primary caregivers. This will be followed by a section on the perceptions of the key informants regarding the realisation of the right to adequate food. A final, brief section will summarise the main differences between the rural and urban sub-groups.

4.1 Assessment of the realisation of the right to adequate food in the study population by using the level of food security

The realisation of the right to adequate food is difficult to measure objectively, as there are so many factors that influence it. Food insecurity can be measured more easily, and if present, it is an indication that the right to adequate food is not being fully realised. Food security is defined by the FAO[5] as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".

By using the level of food insecurity to assess the realisation of the right to adequate food, it is clear that the right to adequate food is not fully realised by all of the children and caregivers who participated in the study. It was concerning to find that three quarters of the caregivers reported that they were either food insecure or at risk of food insecurity at some point within the past month as there should never be any days when any individual is food insecure.

Although one cannot directly compare this study to others due to different methodologies used the level of food insecurity found in this study (21%) was lower than both the national average of 26.0%, and that of the Eastern Cape (36.2%) reported by the 2012 South African National Health and Nutrition Examination Survey (SANHANES-1).[34] Earlier studies in the Eastern Cape reported even higher levels of food insecurity, at 45.4% provincially in 2008[3] and locally at 100% in Klipplaat (a town nearby to the Blue Crane Route in the Cacadu District) in another 2008 study.[47] If one

looks at this trend of improved food security in the Eastern Cape, it may be due to the State making an effort to progressively realise the right to adequate food. This corresponds with national data which indicates that food insecurity has halved between 1999 and 2008; although no improvement has been made since then, it is now being maintained at the same level.[34] No previous research data is available on food security in the Blue Crane Route specifically. As the sample size is small in this study, one must be careful to draw comparisons with other areas in the Eastern Cape.

Caregiver households most frequently had between four to six people residing in them and two thirds had a household income of less than R3000 per month. This monthly household income was much lower than that reported for people residing in the Eastern Cape in 2012, where less than half reported an income of less than R3200 per month.[34]

Three quarters of the caregiver households spent between R50 and R250 per week on food (this is equivalent to between R200 and R1000 per four week month). According to the literature, in 2008[42] it cost a family of five in South Africa R1090 per month to be able to eat a healthy diet. By 2013 (when the data for this study was collected) the cost of a healthy diet would have increased, yet the majority of the study population was not even spending the recommended R1090 from 2008. In 2015, the food poverty line in South Africa was estimated to be at R335 per person per month, which would amount to R1675 per family of five.[41] It is unlikely that caregiver households were able to make nutritious food choices to alleviate hunger with their disposable income.

A good household income is vitally important to improving food security[34] as it ensures economic access to good quality food, which is one of the necessary components in realising the right to adequate food. Without an adequate financial income one cannot afford to access food, even if it is readily available. Poor people are most likely to buy foods that are most filling and least expensive. These are usually foods with a high energy density that contain a lot of sugar or fat, but inadequate vitamins and minerals.[77,78] These types of unhealthy foods that lead to overweight and obesity are associated with an increased risk for non-communicable diseases, such as hypertension and type two diabetes. The incident rates of these non-communicable diseases are on the rise in South Africa.[34]

This finding was further reinforced with the poor variety of foods eaten by the study population. Approximately one third of both the caregivers and children had only eaten three or less different types of food in the day preceding the questionnaire. Based on the literature, it is known that people who consume a diet with a low dietary diversity, suffer from dietary inadequacy and are nutritionally vulnerable.[44,45] There is no single food that contains all of the nutrients required for good health (other than breast milk in the first six months of life). The more types of food a person

consumes, the more chance the person has at achieving a nutritionally adequate diet. Conversely, the more monotonous the diet is, the greater the likelihood of food insecurity. A dietary diversity score of at least four is required to indicate an adequate variety of food intake.[44] Although this study did not make use of the standardised dietary diversity score, the lack of variety of food types eaten indicate that the study population was likely at risk for micronutrient deficiencies. This is not in line with the definition of the right to adequate food which highlights that food must be of a sufficient quality to meet the dietary needs of an individual.[5]

A low vegetable and fruit intake, combined with a high intake of fat, refined carbohydrates and sugar, are known to be detrimental to health and are commonly seen in countries undergoing a nutrition transition. This occurs when a country moves away from healthier, unrefined foods towards a more westernised diet of fast foods and refined carbohydrates.[79] South Africa is one such country going through a nutrition transition.[26]

Most caregivers had eaten starch, fats, sugar and beverages on the day prior to the questionnaire, foods which do not have a high micronutrient density. Vegetables and fruits, which are sources rich in micronutrients, were eaten by less than half of the participants on the previous day. This is in line with the 2012 SANHANES-1 finding that found the Eastern Cape to be the province with the lowest intake of vegetables and fruit, with a low consumption rate of 38%.[34] The World Health Organisation (WHO) recognises that poor consumption of vegetables and fruits is detrimental to health and leads to micronutrient deficiencies. They recommend an intake of at least five portions of fruit and vegetables per day.[80] Food of a good nutritional quality is fundamental to the fulfilment of the realisation of the right to adequate food as to meet the right food must be of a "quality sufficient to satisfy the dietary needs of individuals".[12] In a 2012 study conducted in six countries (South Africa, United States of America, Canada, France, United Kingdom and the Netherlands), it was found that by subsidising the price of healthier food options increased the number of people choosing to purchase and eat these foods. This strategy was effective in modifying people's dietary behaviours for better health.[81] Although fruit and vegetables are zero-rated tax items in South Africa this is something that South Africa should consider doing on a much larger scale as it is an effective intervention and would improve economic accessibility of food to rights holders. There is also some evidence that suggests that additional taxes on unhealthy food options encourage the selection of healthier food choices.[81]

Caregivers in this study more commonly ate less than three meals per day, while the children more frequently ate more than three meals per day. Although this may be seen as a manner in which to improve the amount of food that the children consume as children need to eat three meals and two snacks per day to meet their nutritional requirements, it could also indicate that there is inadequate food in the household and that caregivers have to sacrifice their own right to adequate food in

order to ensure their children's right is realised. This corresponds with the 2011 review of national food security surveys that found that caregivers would skip meals so that their children could eat more.[3] Likewise, children had a higher dietary diversity and ate more types of food than the caregivers. Caregivers do have a responsibility towards caring for their children and assisting them to realise their right to adequate food.[17] By putting these coping measures in place it can be seen as the caregivers embracing their role as duty-bearer by acting on behalf of their children. However, at the same time the caregiver's right to adequate food should not be infringed on when they are assisting their children, and here the government should be playing a more active role as duty-bearer to empower the caregivers so as to not to have a need to rely on coping mechanisms.

Study participants reported that, on average, they experienced hunger in two and a half out of the previous 12 months. The fact that January was found to be the month with the highest level of hunger in the household in this study, was in line with another South African study, which found January and the winter months to be the times of the year with the most hunger.[47] Possible reasons for the higher level of hunger in January could be due to more expenses at the beginning of the year, such as back-to-school items, as well as having to compensate for more extravagant spending during the festive December month, the month that the least amount of hunger was reported.

Caregivers frequently had to put coping mechanisms in place to promote their household food security, many of which were focused on improving their economic accessibility to food. The frequency that coping mechanisms needed to be implemented was concerning to see. Buying food on credit, borrowing money from an employer, taking out a loan, relying on food parcels and begging are not sustainable solutions and disempower the community. Other South African studies also reported similar coping strategies to deal with food insecurity.[23,39] These coping mechanisms are not in line with the principles of availability, accessibility or sustainability that are intrinsically part of the realisation to the right to adequate food.[12] The fact that coping mechanisms needed to be put in place by families indicates that these families may be in crisis and that there is a need for them to receive support and safety nets from the government whilst in need.

From the above it appears as though the caregivers' realisation of the right to adequate food is in jeopardy by trying to promote and protect it for the children. Conversely, the State is not fulfilling its obligation to realise the right to adequate food. According to General Comment 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR),[12] the State has a duty to respect, protect, and fulfil the realisation of the right to adequate food. The findings in this section speak directly to protecting and fulfilling the right. The caregivers' right is not being protected, as they are forced to give up their food security to provide for their children at times. According to the Bill of Rights in the South African Constitution all people have the right to have

access to sufficient food, whereas children have the added right to basic nutrition and not just access to adequate food.[30] Despite adults having more responsibility towards realising the right themselves, the participants residing in the Blue Crane Route do not appear to be in a position to fulfil the realisation of the right themselves, and thus require assistance from the State. The State needs to implement measures to both facilitate and provide, so that the right to adequate food can be met.

The high cost of realising the right to adequate food, as well as the lack of resources in South Africa, is often used by the State as an explanation for the progressive realisation, rather than the full and immediate realisation of the right. This can be seen in how it is worded in Section 27, paragraph two of the South African Constitution[30]: "the state must take reasonable legislative and other methods, within its available resources, to achieve the progressive realisation of each of these rights". One is left to wonder if the State is doing enough to progressively realise the right, or if this is a convenient loophole to not actively pursue the full realisation with urgency. A South African Human Rights Commission report examining the progressive realisation of economic and social rights in South Africa between 2006 and 2009, found that although the State has made some progress towards realising the right to adequate food and other related rights, the progress has not been adequate and does not meet the human rights definition of progressive realisation.[82]

According to the 2015 report by the Studies in Poverty and Inequality Institute on the right to food in South Africa,[63] innovative solutions that reconsider the underlying issues that cause food insecurity and how to respond to them are needed. At a national level, South Africa is food secure in terms of availability of food, but on the household level there are still many malnourished and food insecure individuals. There is a recommendation that targets, that are sustainable and promote equity, should be set to improve food security. These targets should particularly relate to household composition, a wealth and livelihood strategy, geography (regarding urban or rural location and the distance from market places for purchasing of food), institutions involved in realising the right, the length of time that food insecurity persists, and risk (weather or health related shocks etc.). Unfortunately, the National Policy on Food and Nutrition Security for the Republic of South Africa[49] has no set no quantifiable targets. Laws and documents make little difference, unless they are effectively implemented and continuously monitored and reevaluated.[63]

There have been a number of recent developments in terms of policies and programmes in South Africa to promote food and nutrition security that draw on the principles of the right to adequate food however, the effectiveness of them remains to be seen. The Department of Agriculture, Forestry and Fisheries implemented the South African National Policy on Food Security in 2014, as well as the National Development Plan, Vision 2030 that is entrenched in South Africa's need to address the problem of food insecurity.[49] Although it is encouraging to see that policies are being

developed the policies are not practical in terms of what their targets are, how they will be monitored and what the practical steps are as to how to implement them. Because of this one is hesitant as to how successful they will be at changing the current situation.

4.2 The relationship between the determinants of and the realisation of the right to adequate food in the study population

Determinants that influence the realisation of the right to adequate food have been researched extensively. In this study some of those factors were examined to see if they have any influence on the realisation of the right to adequate food of this study population. It is not possible to objectively measure the realisation of the right to food with one measurement; therefore the determinants were compared to the level of food security, which is known to relate to the realisation of the right to food.

In other studies in South Africa, the following factors were found to have an influence on the level of food insecurity, wasting, underweight and/or stunting: the child's age,[24] the number of children the mother has,[24] the number of people living in the household,[50] the child's gender,[24] the mother's education level,[46] who the household head is,[50,54,55] whether or not the mother lives in the same household as the child,[51] ethnicity,[38] the amount of money spent on food,[3,47] residing in a rural area,[46,50,56] and the water source[40]. Thus, in turn these determinants would also influence the realisation of the right to adequate food.

Although there are numerous determinants that affect whether or not the right to food is realised, this relationship was not clearly seen in this study. The only significant differences found were that coloured children and caregivers were less food secure than their black counterparts, and that those with a higher household income were more food secure. A reason that no significant differences were found for the other determinants may be due to the small sample size of the study.

Like this study, the 2012 SANHANES-1 also found that a lower household income and money spent on groceries correlated with food insecurity[34] and thus poorer realisation of the right to adequate food. The significant difference in the findings makes sense, as people with a higher income are able to afford to purchase food more easily. There is a recognised cycle between poor nutrition, illness and poverty.[83] Indeed, a good household income is important for improved food security as it directly affects the financial accessibility to food,[34] which is a necessary component of the realisation of the right to adequate food.

Although the results of this study cannot directly be compared to other studies due to different methodologies used finding regarding ethnicity in this study do not correspond to the 2012 SANHANES-1 that found the black population to be food insecure more frequently (30.3%) than the coloured population (13.1%). The same survey also found that more of the black population (44%) than the coloured population (28%) did not have enough money for food and other household essentials, although both black and coloured households were reported to experience the highest levels of hunger in South Africa.[34] Although one cannot directly compare findings in this study to a national study the reason for a lack of similarity in results is unclear, but may once again be due to the relatively small study sample size. Interestingly, in terms of ethnicity, coloured children were found to have a higher level of stunting than their black counterparts in the SANHANES-1.[34] Stunting is of concern as it is indicative of poor cognitive development and compromised physical abilities in the child, leading to the individual being less productive later in life.[34] This was a change from the 1999 NFCS findings where stunting levels were highest amongst black children.[46] None the less, according to the South African Bill of Rights,[30] there should never be discrimination against one group of people, and the principal of equality should be ensured in the realisation of all rights. When vulnerable groups are identified they need to be targeted in policies and interventions to ensure equal realisation of rights by all.

4.3 The capacity gaps of duty-bearers in the realisation of the right to adequate food in the study population

Certain other human rights such as water and sanitation are known to indirectly affect the realisation of the right to adequate food as all rights are interrelated, interdependent and indivisible. According to the Universal Declaration of Human Rights,[7] the South African Constitution[30] and Article 11 of the ICESCR,[16] the State, as the main duty-bearer, should ensure that these amenities are available.

The number of households with flushing toilets and electricity in this study was similar to the levels found in the Blue Crane Route in the 2011 South African census. Four out of five caregivers reported having flushing toilets and used electricity as the main fuel source. This was comparative to the 81% and 82% found respectively in the 2011 census. Interestingly, the number of households that reported having piped water supply was much higher amongst the caregivers (at 75%) than what was reported in the 2011 census (at 51%). All amenities in the Blue Crane Route had improved drastically from the 2001 South African census, where 46% of households had flush toilets, 25% of households had piped water and 65.1% had access to electricity.[70]

It must however be noted that not all the caregivers had access to reliable and safe sources of water, ablution facilities or electricity. According to the United Nations' newly implemented

Sustainable Development Goals (which replace the Millennium Development Goals),[84] goal six is to "ensure access to water and sanitation for all". It recognises that inadequate sanitation and poor water quality can negatively impact on food security, meaning that these amenities play a crucial role in realising the right to adequate food.[84] Approximately one fifth of the caregivers did not have flushing toilets, and relied on alternative ablution facilities. More than half of the rural caregivers did not receive their water supply from a trusted source (using either a borehole, river or water tank). Although water quality was not tested, when asked, a fifth of the caregivers did not think that the water was safe for drinking. Only half of the rural caregivers used electricity as their main fuel source.

The better ablution facilities, water source and electricity supply within the urban setting indicate that the State has made an effort to improve the availability of these resources in urban areas. This has however not yet been fully implemented in rural areas. It is more difficult to ensure that these resources are present in rural areas due to the infrastructure needed, and this may be the reason that they are lacking. Article 2 of the ICESCR, as well as General Comment 12, discuss the progressive realisation of rights, particularly in developing countries such as South Africa. Certain rights, such as the full realisation of the right to adequate food, are expensive to realise and not necessarily within the State's immediate financial capabilities.[12,16] The fact that there has been an improvement in access to better ablution facilities, piped water and electricity shows that the State is taking its responsibility to progressively realise the right to adequate food and safe water seriously. There appears to be a political will to improve the living conditions in the Blue Crane Route. None the less, for those that are not yet enjoying improved living conditions there are health risks, and they are currently denied access to their full realisation of the right to adequate food. A safe water supply is necessary for the full realisation of the right to adequate food as without it food cannot be prepared safely. Civil society needs to be involved in monitoring the situation and holding government officials accountable. Civil society can play an important role in pressuring the State to ensure that rights are fully realised.[69]

Caregivers expressed frustration at a lack of employment opportunities and felt strongly that the government had the infrastructure to create more jobs. Approximately two thirds of the caregivers reported that adults in their household were not working, because they could not find a job. Unfortunately, through the key informant interviews, it appeared that the local municipality, as an extension of the State, did not perceive this as problematic. They were of the opinion that the community should be taking responsibility for their employment themselves. The 2011 South African census reported that a third (30.7%) of the population of the Blue Crane Route was unemployed.[70]

The municipality's key informant stated that their solution to improving employment opportunities was to form cooperatives for the youth. He however was concerned with the resistance and lack of eagerness from the community to become involved in this programme. If a rights-based approach had been followed by the local government, resistance from the community would have been identified as problematic, and the community could have been engaged with to suggest solutions. A rights-based approach recommends that human rights principles should be employed throughout the development process when implementing programmes; including throughout the assessment and analysis stage, planning of the programme, the implementation and the monitoring thereof. These principles include participation, non-discrimination, empowerment and accountability.[10] When human rights principles are applied, the community is involved in the decision-making process and are able to identify suitable programmes that they want to participate and be involved in themselves. It also allows for the community to make suggestions for improvements to existing programmes.[10,28] This empowers the community to take responsibility for their situation and in turn supports a sustainable solution towards realising the right to adequate food.

Caregivers experienced that there are more employment opportunities and better remuneration for men than women. One of the principles of human rights is to ensure equality and non-discrimination.[85] The inequality reported here is not in line with this principle. There was a notable amount of inequality felt by caregivers regarding employment and salary equity between men and women, as two thirds thought that men had more opportunities to find work than women. Likewise, more than half felt that men were paid more than women for the same job. Contradictory to this, key informants were not of the opinion that there was a gender discrimination problem within the Blue Crane Route. These conflicting findings were disconcerting. The community needs their voice to be heard. In instances like this, civil society has a crucial role to play. Commitments on paper mean very little if there is not an active civil society pressurising the State to act on its promises. In a number of previous instances in South Africa, civil society has been effective at ensuring human rights are adhered to, such as the Treatment Action Campaign's bid for free anti-retroviral medication and the Grootboom case for the right to access to housing.[69] Civil society should continue to fight for the full realisation of the right to adequate food on behalf of vulnerable population groups such as women.

An overwhelming number of caregivers relied on social grants as part of their monthly household income. Poverty levels in South Africa have declined since 2000, and much of this has been attributed to the expansion of the social grant system, and in particular the child support grant.[67] Growing evidence points towards social grants having a positive impact on the lives of poor children living in South Africa.[64] Children who live in a household that utilises the support grant have an improved nutritional status. This is especially so for those who have an early initiation on it and receive it for a prolonged duration of time.[67] The Special Rapporteur's report on the right to

food in South Africa in 2011 highlighted the positive impact that the social grant system is having on vulnerable people who are now able to economically access food which supports the realisation of the right to adequate food.[86]

Of concern was that a tenth of the caregivers only received an income from social grants and a third of the participants stated the reason for adults not working in their household was that they received an income from grants. One of the key informants summed this up well by stating that the community members were becoming "social grant dependants". A 2008 review of the child grant, found that it contributed up to 45% of the total household income in the Eastern Cape.[64]

The social grants can be seen to both protect the right to adequate food, as well as infringe on it. Social grants can at times improve the immediate realisation of the right to adequate food when an individual is not able to afford food themselves. Indeed, in certain circumstances social grants can act as a lifeline when households experience high levels of unemployment and have no prospects for employment.[64] However, the definition of the right includes that the provision of food must be sustainable and as such, social grants are not viewed as a long-term solution to the realisation of this right. The majority of the population are none the less heavily reliant on social grants. There is clear evidence that hunger amongst children has decreased as the child support grant programme has expanded. Despite this further expansion of the grant programme, it is not considered to be a realistic, sustainable, long-term strategy, as it does not support an independent, self-sustaining community. This is because of financial constraints, as social grants cost a lot to implement and without an expanding economy the monetary value of the grants cannot be increased much. There is also a danger that by increasing the monetary value of grants will give incentive for perverse behaviour by recipients.[67]

Although key informants thought the social grants could be beneficial when spent correctly, they highlighted many concerns with them, and in particular the child support grant. The perception was that the child support grants were being abused by loan sharks, the money was not being spent as it should be, and it encouraged teenage pregnancies. This corresponded with comments made by some of the caregivers who also felt that loan sharks took the money and that child grants were being abused by parents. A possible solution to this could be providing vouchers to purchase food with, instead of a cash grant. A review of the child grant (2008) found that the income received from the grant was pooled with other household income and spent on general expenses in the household in more than 50% of the cases. This was despite the caregivers being aware that the grant was supposed to be used solely on the child. However, those receiving it were also more likely to spend more money on food and use the grant for other essentials like education and basic services.[64]

Contrary to the perceptions of the key informants and caregivers mentioned before, a 2012 review of the child support grant found that in households receiving the child grant, adolescent risky behaviour decreased. Less teenage pregnancies, sexual activity, alcohol abuse, drug abuse and criminal activity were reported amongst adolescents. School performance and cognitive skills were better if a child received the grant, particularly if they started receiving it early in their life.[66]

Interestingly, although the monetary value of the grant should be the same amongst participants, this did not always seem to be the case. When reporting income, some of the caregivers reported receiving different amounts of money for the same grants. In 2013, at the time of data collection the monetary value of the child support grant was R290 and the old age pension was R1260.[87] Despite this the amount reported by participants varied, and was reported to be as low as R150 for the child support grant and R1200 for the old age pension. It could be that caregivers did not report the amount they received correctly. However, reports from key informants corresponded with this as they also expressed concern that the grant was not always issued consistently, and that some months only part, or none of it was issued. There is evidence to suggest that cash transfers, such as the child grant, play an import role in ensuring that caregivers are able to provide their children with food that is of an adequate nutritional quality. However, regular access to this money is required for it to be an effective and sustainable solution.[64] This disparity in consistent income from the grant reflects negatively on the provisions of the State to fulfil the realisation of the right. Caregivers need to be able to rely on a consistent income from the grant to be able to utilise it effectively. The State needs to be consistent in awarding the same amount of money each month for the grant. The Special Rapporteur's 2011 report on South Africa highlighted concern that rural areas had low uptake levels of social grants due to difficulties in accessing them, although they were most in need for receiving them.[86]

It is recognised that social grants alone are not adequate to reduce levels of poverty. Other measures are also needed. In South Africa, social grants are supposed to be combined with the national school nutrition programme, free basic health care to children under six, as well as school fee exemptions or no-fee schools. Housing subsidies, free basic services, adult basic education and training, and public works programmes are examples of initiatives that are in place to address poverty. These initiatives can be seen as the government playing a facilitation role in enabling people to eventually being able access food themselves through their improved skills. Unfortunately, access to these measures is quite varied and participation in them is low. It is unclear if this is because of a lack of knowledge about the programmes by the caregivers or because of limited provisions of the programmes.[64] A review of the child grant in 2008 suggested that the grant should form the referral gateway to other poverty alleviation programmes and that a more coordinated process was needed than what was currently in place. The same review found that although there are policies and programmes in place, there is inadequate communication

about them on the local level that would allow the community to access the benefits that they can provide.[64] The Special Rapporteur's report on his 2011 mission to South Africa suggested that a link should be made between the social grant system to the Expanded Public Works System so that grants could be developed into entitlement-based projects and improve job creation.[86]

This reflected in the findings of this study, as key informants struggled to identify the existing programmes and policies that were in place to support the right to adequate food. Many of the key informants were governmental employees in managerial positions, and as such duty bearers, and should be acting as the arms of the State that are implementing and supporting the right to adequate food in the Blue Crane Route. According to the Food and Agriculture Organisation (FAO) Right to Food Voluntary Guidelines[88] on integrating the right to food in national food and nutrition security policies and programmes (2014), policies and programmes should follow the human rights principles. That is, there should be participation by stakeholders, particularly the most vulnerable, throughout the process, in the assessment, decision-making, implementation and monitoring. The State should be held accountable for realising the right to adequate food, and there should be no discrimination against any groups. There should be transparency and access to information, as well as protection of human dignity. People should be empowered to be able to change their situation and the rule of law should be applied to ensure the right is enforced legally. For effective implementation of programmes and policies, good governance needs to be in place and there needs to be continuous analysis, monitoring and evaluation of the progress made.[88] In South Africa, the Human Rights Council was established through the constitution to act as an independent body that is mandated to monitor the progressive realisation of economic and social rights, and make recommendations to the State.[68]

In 2014, the FAO highlighted the importance of integrating the right to adequate food into food and nutrition security policies and programmes as this can lead to better and more sustainable outcomes.[88] Key informants were frustrated with the lack of good interdepartmental relationships within the government, as well as mismanagement of existing programmes. Blaming of other departments for poor quality of programmes was commonly seen, with key informants pointing out programmes that were not well implemented within other departments, but not acknowledging their own shortcomings. This corresponds with the findings of a 2008 review of the child grant that noted that there was poor coordination between departments and a lack of referral from one programme to another.[64] Key informants also mentioned that although nutrition is part of many programmes and policies, no real effort is being made to improve it. Since the completion of data collection for this study, the South African National Policy on Food Security has been drawn up by the Department of Agriculture, Forestry and Fisheries in 2014 (although first drafted in 2002) stating that "well managed, inter-sectoral coordination and integration of existing policies and programmes" are needed to improve food and nutrition security.[49] This reflects that the State is

aware that policy and programme coordination and implementation is problematic, but it remains to be seen if the policy will have the desired effect. The amount of time taken from first drafting the policy to completing it is disconcerting, especially given the situation regarding food security in South Africa. It is, none the less, encouraging to see that this policy has been finalised and published.

Unfortunately, the food fortification programme which the State implemented in 2003 to improve the micronutrient quality of food[60], was found to be widely unknown. None of the caregivers were able to correctly identify the food fortification logo or looked for it when purchasing food. Only one key informant mentioned the food fortification programme as such. Despite the food fortification programme being implemented in 2003, 12 years later it remains controversial as there are substantial gaps in its effective implementation according to a 2015 review of policy effectiveness. It relies on the compliance of large food manufacturing companies to fortify foods, but there are currently no standards in place for the fortification mixes used, which means quality is not guaranteed.[63]

If efforts are made to improve the quality of food, appropriate standards need to be set. The public needs to be made aware of these efforts, so that caregivers can in turn be empowered to fulfil their role as duty-bearers for the rights of the child. At the time of data collection, the programme had been implemented for ten years already, yet not one caregiver knew to look for the logo when purchasing food. This suggests that there has been a lack of empowerment and education regarding the programme within the community. This shows that a rights-based approach that implements human rights principles, was not being applied when developing and implementing the programme.[10] Without effective health promotion and good communication between the State and the community regarding policies that are in place, very little progress will be made. Even though the government may have been compliant with their obligation to provide food, it does not benefit anyone if it is of inadequate quality. If the State, as duty-bearer, wants to fulfil its duties, it needs to create an enabling environment for implementation through empowering and educating the community about the programmes that are available to them. South Africa can learn from the example in North East Brazil where two pilot projects between the Brazilian Action for Nutrition and Human Rights group and the FAO provided support through weekly meetings with the community to empower and educate the community about human rights and how to claim them. Participatory monitoring of human rights was done and public hearings with governmental officials were held to address shortfalls in the realisation of rights. This resulted in community leaders, together with state officials producing the Term of Adjustment of Conduct which held the local government accountable to fulfil economic and social rights.[68]

In light of the extent of food insecurity reported in this study, it was encouraging to see that four out of five of the children attending crèche or school received a meal at school. Key informants were also very positive about the national school nutrition programme in the area, and felt it was being well implemented. It is one of the few government initiatives that has remained effectively implemented since its inception in 1994; and currently 98% of schools throughout the country provide meals to all learners targeted by the programme.[63] This is one area where the State has been successful in fulfilling their obligation to provide for the rights of children.

In a community with such a strong reliance on the social grant system, the State should be looking for sustainable solutions that empower the community. In an agrarian area, such as the Blue Crane Route, subsistence farming can be seen as a sustainable, non-income dependant approach to alleviate food insecurity.[3] Support of subsistence farming has been recognised as a way to improve the realisation of the right to adequate food.[22] Home vegetable gardens can reduce poverty and improve food security. This can be achieved by the household spending less money purchasing food, selling excess produce for an additional household income and home-grown produce can improve the micronutrient intake of the family.[40] However, only a third of the study population reported growing vegetables or keeping livestock. This was despite most of them stating that they had access to land and water for agricultural activities. Both the caregivers and key informants were of the opinion that the low prevalence was because of the expense of seeds and other costs, a lack of labour, and poor knowledge of appropriate agrarian practices. Although home vegetable gardens have many benefits the findings of this study were in line with those of a study that found that less than five percent of people in their study population living in urban areas of Cape Town participated in urban agricultural activities.[58]

In order to improve the realisation of the right to food, small-scale farming needs to be supported by ensuring that there are good supportive public policies, rural education and infrastructure, as well as a partnership between the State and small-scale farmers. Industrialised agriculture will not solve the food crisis in many African countries, rather small-holder farmers need to be supported.[22] Up to now, government attempts in South Africa to support small-scale farmers have been costly, but not very effective. The budget for small-holder farmer support has increased, but the use and fair distribution of resources have been problematic, resulting in very few small-scale farmers benefiting. Support for small-scale farmers is needed through the lowering of input costs, the availability of support services, and a ready market availability to sell small surpluses to.[89] The 2014 report on the transformative potential of the right to food by the Special Rapporteur on the right to food, highlighted the importance of the state supporting small-holder farming to promote the realisation of the right. The example of Brazil, were family farms coexist with commercial farms, is proof that it is possible to support small-scale farming even when industrialisation is taking place. Here family farms are protected by the government and a balance between the protection of the

small-scale farmer and commercial farms is achieved.[90] However, on the other hand, there is concern that food production by small scale rural farmers is not the solution as it has been emphasised for decades, but there are very few successful initiatives to show for it.[91]

Many capacity gaps were identified, both from the primary caregiver questionnaires and during the key informant interviews. If the right to adequate food is going to be fully realised, the State needs to acknowledge that there are areas that need improvement, and take a rights-based approach in addressing them. There needs to be commitment from the State, at all levels, to really make an effort to make the realisation of the right a reality.

Recommendations for improving the realisation of the right to adequate food in South Africa made by the Studies in Poverty and Inequality Institute in a 2015 report on the right to adequate food, are to have a shared, multidisciplinary vision across all sectors regarding food security. There needs to be a strong political will within the State at the highest level, with a food security unit within the Presidency that ensures a coordinated effort of national, provincial, and local levels of governments within all the different departments. Civil society needs to engage with government regarding policies and programmes that alleviate food security and monitor the State's actions. Civil society should be involved in empowering the broader community to claim their right to food. The State's obligations in realising the right to adequate food need to be institutionalised in a legal framework that is implemented through appropriate policies and programmes. This needs to be developed through a participatory process. There needs to be regular and reliable monitoring of household food and nutrition security through a good monitoring system which uses standardised measurement tools.[63]

Advocacy of human rights can be very effective. If an understanding of human rights is spread to state officials, they will have a better grasp of the importance of implementing human rights-based approaches. This in turn can motivate the government to take action to fulfil their obligations. Likewise, civil society can empower the community to demand accountability from the State and claim their rights. In Brazil, from the 1980's onward, Citizenship Action, a movement based on human rights principles, very effectively addressed hunger, poverty and social exclusion. More than 7000 local committees were set up to build capacity. The movement concentrated on fostering communities' ability to purchase or produce the necessary food. This movement was a pushing force that later enabled legal and policy commitments to be made in Brazil regarding the right to food.[68]

4.4 Perceptions of the primary caregivers in the study population regarding the actions required to realise the right to adequate food

A framework, known as the nested rings of responsibility, has been recommended to be used by duty-bearers to aid in realising the rights of the child. This framework can also be applied to other human rights, such as the right to adequate food.[17]

Although the Universal Declaration of Human Rights recognises that everyone, universally, is entitled to all human rights[7] a quarter of the caregivers in this study did not know what human rights were. This means that they are not empowered to hold the State accountable for implementing the right to adequate food or other related rights. If the outer rings (the State and local municipality) want to empower the inner rings (the family and community) to act as duty-bearers, they should ensure education within the community on the topic of human rights.

Most of the caregivers did not view themselves as being able to improve the food circumstances of their children. Of those that did think they could do something, almost all of them felt that employment was the answer. It thus appears that the family, the inner most ring of duty-bearers, does not currently have the capacity to fulfil its role adequately. Caregivers saw their family as a support structure to support the realisation of the right to adequate food. This was encouraging, as it meant they recognised the role the wider community plays as a duty-bearer in enabling the realisation of the right.

A FAO publication on the methods to monitor the right to adequate food, states that the duty-bearers need a certain capacity to be able to perform their duties. One of the crucial elements it highlights is the economic access to and control of economic resources.[85] As seen by the lack of employment opportunities, caregivers are not in a position to fulfil their role as duty-bearer without assistance and empowerment from the State. In this case the State has the responsibility to step in to fulfil the realisation of the right.[12] When it comes to human rights, the State has the primary responsibility to ensure that rights are realised.[17]

Although the government is by law expected to support, protect and enforce the realisation of the right to adequate food,[30] very few of the caregivers accurately identified the State as being responsible to fulfil this role. However, when prompted by specifically asking them if they thought the government should do something, the majority responded that they did think so. A human rights commission is a resource that can be of assistance when it is necessary to redress human rights violations by the State or other parties.[69] One of the South African Human Rights Commission's duties is to promote human rights[68] and as such it should be playing an active role in creating awareness regarding human rights. Unfortunately, if the public is not empowered to know

that their rights are not being realised, they will not know to report inequalities to the South African Human Rights Commission.

The majority of caregivers perceived that the most ideal way to improve their situation would be in the form of immediate help, either in the form of money or food parcels. An increase in social grants, and in particular the child support grant, was mentioned by the caregivers as an ideal solution. Although this immediate provision is a necessary requirement of the State in terms of the fulfilment of the right when people are not able to provide for themselves this solution does not appear to be in line with the core values of the realisation of the right to adequate food discussed in General Comment 12. It recognises that food should be accessible (physically and economically) and that this access should remain sustainable in the long term.[12] Social grants and food parcels do not support these values as they are not long-term sustainable solutions. A human rights-based approach includes the principles of empowerment and human dignity, and also of participation and inclusion.[85] These principles should be implemented by the State when finding a more suitable, long-term solution to improved realisation of the right to adequate food. Caregivers need to be better educated on the realisation of the right to adequate food as it seems that their understanding of what can be done is limited to provision, rather than the other aspects such as empowerment and self-sustainability which can also promote the right.

Some programmes in other countries have been found to be effective in improving the realisation of the right to adequate food. Peru's Wawa Wasi Programme provides goods in kind, rather than cash transfers like the South African social grant programme. This is because of a concern that recipients might not spend the money for its intended usage. This programme focuses on community-driven childcare centres in poor neighbourhoods staffed by local caregivers who are trained to provide early child development services.[67] The "Know your Child" programme in Chile improves education through having a positive effect on later learning. Its focus is on training mothers who are then able to start small preschool groups that receive publically funded educational materials. Better education increases the chance of learning better skills, and thus better employment opportunities later in life; which in turn can prevent poverty.[67]

4.5 Perceptions of the key informants within the community regarding the realisation of the right to adequate food of the study population

Very few of the key informants were able to correctly define the terms 'food security' and 'the right to adequate food'. Most of the key informants were chosen to participate in this study, because they are key role players, and as such duty bearers, in the Blue Crane Route who should be implementing programmes to support the right to adequate food; yet it is very difficult for them to do so if they do not understand the right or related concepts themselves.

Although the majority of the key informants identified that there was a problem with hunger and food insecurity within the Blue Crane Route, they were reluctant to identify the State as being responsible for this. They did confirm that there was a problem with a lack of employment opportunities and acknowledged that it was difficult for the community to break out of their current situation without help. None the less, they were inclined to point a finger at the caregivers (as rights holders) who in their opinion were not taking responsibility for their situation and were regarded as lazy.

These statements by the key informants are disconcerting. A 2013 study conducted in Grahamstown in the Eastern Cape, found that informal social security networks, such as savings clubs, were not a suitable solution to end poverty. Most people were too poor and could not afford to belong to these support networks. In most cases the social grant system, and to a lesser extent wages, were relied on for poverty reduction.[92] Although it is easy to suggest that people need to take responsibility for themselves and make changes, it is very difficult for people to break out of the cycle of poverty themselves without external help. According to the nested rings of responsibility,[17] the key informants are viewed as duty-bearers, who should be part of the team assisting the community to realise their right to adequate food. Paragraph 15 of General Comment 12 clearly puts the onus on the State to respect, protect and fulfil the realisation of the right to adequate food.[12] Despite this, the general consensus of the key informants was that the State was not responsible and did not need to take further action to realise the right.

Judging by these answers, it would seem that the duty-bearers at the local municipality level do not have the capacity to implement their duties. There appears to be a lack of motivation and acceptance of duties, as well as poor communication between the local municipality and the community regarding the situation.[85] When this is the case, it is the State's responsibility, on a provincial or national level, to intervene and ensure the right to adequate food is realised.[17] As recognised by the FAO, only educated duty-bearers are able to fulfil their obligations. Initiatives to educate and improve awareness of human rights amongst duty-bearers need to take place so that their capacity to carry out their obligations is strengthened.[68]

4.6 Comparison of the determinants to the realisation of the right to adequate food between the rural and urban sample groups within the study area

Food insecurity was more prevalent in the rural (people living on farms) caregiver population than the urban (people living in towns) population, although the difference was not significant. This finding was reinforced by the urban population having a higher dietary diversity, and also corresponded with the key informants who felt that there was less access to a variety of food

available on the farms. It corresponded with the 2012 SANHANES-1 in which rural formal (60%) and rural informal (51%) populations had the lowest dietary diversity scores, and formal rural areas had a 37% level of food insecurity.[34]

However, despite this, the general feeling of the key informants was that the people living on farms had better realisation of their right to adequate food as they had better coping strategies available such as vegetable gardens, assistance from the farmers, and an income in the house due to a household member being employed on the farm. There is an increasing awareness that urban food insecurity is becoming a problem in Sub-Saharan Africa as a large number of poor people previously residing in rural areas are now moving to urban areas. These people often opt for cheaper, energy-dense foods as women do not have time to prepare nutritious meals due to having joined the workforce since moving to the urban area, or because they are unable to afford food due to the increased expenses of residing in an urban area, resulting in urban food insecurity.[47]

Despite the key informants suggesting that rural areas had more availability of vegetable gardens, the intake of fruit and vegetables was found to be lower in the rural areas. This corresponds with the SANHANES-1 (2012) that reported that a low intake is often due to the cost and availability of fresh produce, and that rural areas have less access to shops and market places. Likewise, the same survey found that rural participants had the most people with low dietary diversity scores.[34] The unavailability of electricity in the rural areas could also have influenced their ability to store foodstuffs freshly in a fridge, in turn negatively affecting the quality of the fresh produce. The quality of food available to people residing in rural areas is problematic. The right to adequate food cannot be fully realised unless the food available is of an adequate quality for good health.

Urban caregivers in this study relied more heavily on social grants than their rural counterparts. This may be due to 12% of the urban participants having a household income of less than R1000 per month whilst only 3% of the rural participants fell into this category. However, another reason for this may be because it is more difficult for rural caregivers to apply for grants. The number of documents required is one of the main reasons that people do not apply for the child support grant. The high travel expenses of rural dwellers have also been noted to impact their ability to access social grants.[66] If human rights principles are followed, there should be measures in place to ensure that people residing in rural areas do not have more difficulty accessing the resources made available by the State, particularly as they have been found to be the more food insecure group in South Africa. Those most vulnerable need to be targeted when policies are developed and implemented to ensure the realisation of the right to adequate food is a reality for all. There should be no discrimination or inequality between different groups of people when realising the right to adequate food.

Chapter 5: Conclusion

This chapter summarises the findings of the study. Limitations of the study, as well as recommendations for future research are discussed. The chapter concludes with the significance of the research.

5.1 Summary of findings and conclusions

The right to adequate food is not fully realised by all in the Blue Crane Route. Efforts are being made to improve it, but they are insufficient.

Although food insecurity levels were lower in the Blue Crane Route than elsewhere in the Eastern Cape, only a quarter of the caregivers reported being entirely food secure in the past month. Households have inadequate finances to purchase healthy, nutritious food of a good quality on a sustainable basis, and they do not consume an adequate variety of food types. Households experienced hunger for an average of 2.5 months in the previous year.

Caregivers had to put coping mechanisms in place, such as eating less frequent meals and purchasing food on credit, to improve the food security of their families. They put their own right to adequate food in jeopardy to ensure that their children had food to eat.

Although previous studies have found numerous determinants that affect the realisation of the right to adequate food, this study only found household income and ethnicity to be significant factors. It may be due to the small sample size of the study.

A number of capacity gaps of the State that inhibit the realisation of the right to adequate food were identified. Caregivers felt there was a lack of employment opportunities and that the State had the infrastructure to create more jobs. However, key informants were of the opinion that the community should take responsibility for job creation themselves. Likewise, gender discrimination was identified by caregivers, but not seen as problematic by key informants. Poor management and implementation of programmes and policies, as well as inadequate inter-departmental collaboration on projects was highlighted. The food fortification programme was found to be especially problematic. There was a lack of knowledge about programmes that protect the realisation of the right to adequate food by key informants, the people who should be ensuring that these programmes are implemented.

Social grants were found to be both protective to the realisation of the right to adequate food, but also to infringe on it. Almost all of the caregiver households relied on social grants as a part of

their household income. The child support grant was able to be used to improve the food security situation of the children, when used correctly. However, there were some concerns regarding the consistency that the grant was issued, as well as misuse of the child support grant by the parents. Improvements in the number of households with running water and ablution facilities were positive actions taken by the State to progressively realise the right in urban areas however, poor living conditions remained prevalent in rural areas. The National School Nutrition Programme was identified as a protective factor, aiding in the realisation of the right to adequate food.

Caregivers (rights-holders) felt disempowered to improve their situation themselves without assistance from the State (duty-bearer). The key informants suggested that the rights-holders needed to take responsibility, although they did acknowledge that the State was not implementing policies adequately to support the rights-holders. Actions are required by civil society to empower and mobilise the community so that they in turn can put pressure on the State to fulfil their right.

Although the State has committed itself to progressively fulfilling the realisation of the right to adequate food, progress has been slow and insufficient. Further actions need to be taken to support, protect and fulfil the realisation of the right for the people residing in the Blue Crane Route. Concerted, multi-disciplinary approaches using a rights-based approach to implement policies and programmes are needed together with the empowerment of the community with the necessary skills, to accept responsibility and make changes. On-going monitoring, evaluation and reassessment of programmes must take place to ensure efforts are effective at achieving the goal of realising the right to adequate food for all in a sustainable manner.

5.2 Limitations of the study

There were a number of limitations to the study that may have affected the results obtained:

- A small sample size and a high error percentage of 9 was chosen for this research study as it is not possible to aim for a bigger sample size or lower percentage due to the logistical and time constraints of the study. This was mainly attributed to the fact that the research project needed to comply with the scope of the prescribed thesis format for a structured master's degree with a 50% research component.

- Likewise, as it was important not to spend too much time interviewing the caregivers, some questions were shortened to aid in condensing the questionnaire.

- The dietary diversity question did not make use of the standardised dietary diversity score. If this had been used one would have been able to more accurately compare the findings to previous research.

- A question on the exact income was not included, and amounts were instead broken up into income brackets. Better analysis of the data regarding the amount of money spent on food could have been done if exact figures were recorded. This was done because of the time constraint, but also out of concern that the caregivers may struggle to answer a question on the exact income as they may not be the household head or in charge of finances in the house.

- The study was conducted at local clinics. This means that the interviewed caregivers were more likely to be responsible people who looked after their children. Different results may have been obtained if a different data collection point was used.

- The findings regarding coping mechanisms showed that very few participants answered that they employed coping mechanisms for between seven to nine months of the year. The one to three month and 10 to 12 month categories received more positive answers. This may be due to the participants finding the question difficult to answer, and perhaps more easily being able to say they had to employ the coping mechanism for one or two months, or every month of the previous year, instead of being able to identify the exact number of months the incident occurred.

5.3 Recommendations for future research

- There is very little to no data available on the food and nutrition security situation in the Blue Crane Route, or on how the right to adequate food is realised in the area. More studies should be conducted in the area to monitor whether or not improvements are made in the future regarding the realisation of the right to adequate food.

- Policies and programmes regarding the realisation of the right to adequate food in South Africa should be reviewed and monitored on an on-going basis. A comprehensive literature review of all the policies and programmes currently available in South Africa that relate to the realisation of the right to adequate food, as well as how effective they are, would be beneficial information for the South African public and civil society to have access to on an on-going, yearly basis.

- There is no study specifically investigating the realisation of the right to adequate food of children in South Africa that makes use of all the criteria recommended by the Food and Agriculture Organisation's Toolkit on the right to adequate food. A nation-wide study would be

of great interest to reflect how well South Africa is respecting, protecting and fulfilling the realisation of the right to adequate food for children.

5.4 Significance of the research

The findings of this study provide new information regarding the realisation of the right to adequate food in the Blue Crane Route, as well as capacity gaps that are currently preventing the full realisation of the right. No study has been conducted on this topic in the Blue Crane Route area before.

The new perspectives gained from this study can be used by the State, at the provincial and local municipality level to guide their efforts to fulfil their obligation to ensure that the right to adequate food is fully realised for everyone residing in the Blue Crane Route. The researcher will be compiling a brief report of the findings and sending it to the key in formants so that they can make use of the findings. Civil society can also make use of the findings to empower the community of the Blue Crane Route to take action to claim their right.

On a personal level, the researcher had gained invaluable insight and knowledge pertaining to the topic of the right to adequate food that she will be able to apply to her field of work, and disseminate to her colleagues through opportunities such as dietetics forums, a conference presentation or a journal article.

Reference List

1. South African Social Security Agency. Social Grants [Online] [s.a.] [access 2015, October 30]; Available: www.sassa.gov.za/index.php/social-grants
2. Joubert G, Ehrlich R. Epidemiology: A Research Manual for South Africa. 2nd Edition. South Africa: Oxford University Press; 2007.
3. Labadarios D, McHiza ZJ, Steyn NP, Gericke G, Maunder EM, Davids YD, et al. Food security in South Africa: a review of national surveys. Bulletin of the World Health Organization 2011;89(12):891-899.
4. The United Nations Population Fund. FAQ's on Human Rights [Online] 2012 [access 2016, January 20]; Available: http://www.unfpa.org/derechos/preguntas_eng.htm#faq4
5. Jaron D, Galal O. Food security and population health and well-being. Asia Pacific Journal of Clinical Nutrition 2009;18(4):684-687.
6. United Nations Standing Committee on Nutrition. Food and nutrition security. Meeting of the Minds: Nutrition impact of food systems 25 – 28 March [Online] 2013 [access 2016, January 30]; Available: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwiot9OL5dPKAhVIshQKHaJ8AmYQFggIMAI&url=http%3A%2F%2Fwww.unscn.org%2Ffiles%2FAnnual_Sessions%2FUNSCN_Meetings_2013%2FWustefeld_Final_MoM_FNS_concept.pdf&usg=AFQjCNFPEdEPW453241HptA7uN7SRJXAUw
7. United Nations. Universal Declaration of Human Rights, 1948 [Online] 2012 [access 2016, January 20]; Available: http://www.un.org/Overview/rights.html
8. The Food and Agriculture Organisation. Inequality analysis: The Gini index [Online] 2006 [access 2016, January 20]; Available : http://www.fao.org/docs/up/easypol/329/gini_index_040EN.pdf
9. United Nations Development Programme. Human development reports: Indices and data [Online] 2013 [access 2016, January 20]; Available: http://hdr.undp.org/en/statistics/hdi/
10. Sarelin AL. Human rights-based approaches to development cooperation, HIV/AIDS, and food security. Human Rights Quarterly 2007;29(2):460-488.
11. Vorster HH, Kruger A, Margetts BM. The nutrition transition in Africa: can it be steered into a more positive direction? Nutrients 2011;3(4):429-441.
12. United Nations Committee on Economic, Social and Cultural Rights. General Comment 12, 1999 [Online] 1999 [access 2016, January 20]; Available: http://www.refworld.org/docid/4538838c11.html
13. Statistics South Africa. Concepts and definitions for Statistics South Africa (version 3) [Online] 2010 [access 2016, January 20]; Available: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi15reT19PKAhUHsxQKHXVwBjcQFggdMAA&url=http%3A%2F%2Fwww.statssa.gov.za%2Fstandardisation%2FConcepts_and_Definitions_%2520StatsSAV3.pdf&usg=AFQjCNEJo0WFK4trj1l7trJaf93cCBzGFg
14. UNICEF. Definitions of basic concepts: Nutrition [Online] 2012 [access 2016, January 20]; Available: http://www.unicef.org/infobycountry/stats_popup2.html
15. The World Health Organisation. Global database on child growth and malnutrition [Online] 2013 [access 2016, January 20]; Available: http://www.who.int/nutgrowthdb/about/introduction/en/index5.html
16. Food and Agriculture Organisation. The state of food insecurity in the world 2015: Meeting the international hunger targets: Taking stock of uneven progress [Online] 2015 [access 2016,

January 25]; Available: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj4zvbQ6tPKAhUH1xQKHUeVAIIQFggdMAA&url=http%3A%2F%2Fwww.fao.org%2F3%2Fa-i4646e.pdf&usg=AFQjCNG5gCNRnzVVhdz9Nm5KI9rqI7B23g

17. Rahim A. Rights to food with a human face in the global south. Journal of Asian and African Studies 2011;46(3):237-249.
18. Kruger R, Schonfeldt HC, Owen JH. Food-coping strategy index applied to a community of farm-worker households in South Africa. Food Nutrition Bulletin 2008;29(1):3-14.
19. United Nations Human Rights. International Covenant on Economic, Social and Cultural Rights, 1976 [Online] 2012a [access 2016, January 20]; Available: http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx
20. Kent G. Global obligations for the right to food. New York: Rowman and Littlefield; 2007.
21. United Nations Human Rights. Convention on the Rights of the Child, 1990 [Online] 2012b [access 2016, January 20]; Available: http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx
22. Committee on the Elimination of Discrimination against Women. Convention on the Elimination of All Forms of Discrimination against Women, General Recommendation No. 24, 1999 [Online] 1999 [access 2016, January 20]; Available: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=INT/CEDAW/GEC/4738&Lang=en
23. Haidar J, Kogi-Makau W. Gender differences in the household-headship and nutritional status of pre-school children. East African Medical Journal 2009;86(2):69-73.
24. Magadi MA. Household and community HIV/AIDS status and child malnutrition in sub-Saharan Africa: evidence from the demographic and health surveys. Social Science & Medicine 2011;73(3):436-446.
25. Van Wesenbeeck CF, Keyzer MA, Nube M. Estimation of undernutrition and mean calorie intake in Africa: methodology, findings and implications. International Journal of Health Geographics 2009;27(8):37.
26. Abrahams Z, McHiza Z, Steyn NP. Diet and mortality rates in Sub-Saharan Africa: stages in the nutrition transition. BMC Public Health 2011;13(11):801.
27. Steyn NP, Nel JH, Parker W, Ayah R, Mbithe D. Urbanisation and the nutrition transition: a comparison of diet and weight status of South African and Kenyan women. Scandinavian Journal of Public Health 2012;40(3):229-238.
28. Wuehler SE, Hess SY, Brown KH. Accelerating improvements in nutritional and health status of young children in the Sahel region of Sub-Saharan Africa: review of international guidelines on infant and young child feeding and nutrition. Maternal & Child Nutrition 2011;7(1):6-34.
29. Lartey A. Maternal and child nutrition in Sub-Saharan Africa: challenges and interventions. The Proceedings of the Nutrition Society 2008;67(1):105-108.
30. South African Government. Constitution of the Republic of South Africa, 1996 [Online] 2009 [access 2016, January 20]; Available: http://www.acts.co.za/constitution-of-the-republic-of-south-africa-act-1996/constitution_content.php
31. United Nations Human Rights. Ratification status of international human rights treaties [Online] 2012c [access 2015, October 27]; Available: http://www.ohchr.org/EN/HRBodies/Pages/HumanRightsBodies.aspx
32. Kimani-Murage EW, Kahn K, Pettifor JM, Tollman SM, Dunger DB, Gómez-Olivé XF, et al. The prevalence of stunting, overweight and obesity, and metabolic disease risk in rural South African children. Biomedical Central Public Health 2010;158(10):1471-2458.

33. Bryce J, Coitinho D, Darnton-Hill I, Pelletier D, Pinstrup-Andersen P. Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: effective action at national level. Lancet 2008;371(9611):510-526.

34. Shisana O, Labadarios D, Rehle T, Simbayi L, Zuma K, Dhansay A, et al. South African National Health and Nutrition Examination Survey. Cape Town: HSRC Press; 2013.

35. Food and Agriculture Organisation. United Nations Development Programme. Country profiles: Human Development Indicators [Online] 2012b [access 2012, October 15]; Available: http://hdrstats.undp.org/en/countries/profiles/ZAF.html

36. International food policy research institute. 2012 Global hunger index. IFPRI 2012 [Online] 2012 [access 2015, October 25]; Available: http://www.ifpri.org/publication/2012-global-hunger-index

37. The World Bank. Data and statistics – country classifications [Online] 2012 [access 2016, January 20]; Available: http://go.worldbank.org/47F97HK2P0

38. Armstrong ME, Lambert MI, Lambert EV. Secular trends in the prevalence of stunting, overweight and obesity among South African children (1994-2004). European Journal of Clinical Nutrition 2011;65(7):835-840.

39. Oldewage-Theron WH, Dicks EG, Napier CE. Poverty, household food insecurity and nutrition: coping strategies in an informal settlement in the Vaal Triangle, South Africa. Public Health 2006;120(9):795-804.

40. Oldewage-Theron WH, Slabbert TJ. Impact of food and nutrition interventions on poverty in an informal settlement in the Vaal Region of South Africa. The Proceedings of the Nutrition Society 2008;67(1):91-97.

41. Statistics South Africa. Methodological report on rebasing of national poverty lines and development on pilot poverty lines [Online] 2015 [access 2016, January 17]; Available: http://www.statssa.gov.za/?page_id=1854&PPN=Report-03-10-11&SCH=6258

42. Temple NJ, Steyn NP. The cost of a healthy diet: a South African perspective. Nutrition 2011;27(5):505-508.

43. Steyn NP, Nel JH, Casey A. Secondary data analyses of dietary surveys undertaken in South Africa to determine usual food consumption of the population. Public Health Nutrition 2003;6(7):631-644.

44. Kennedy G. Evaluation of dietary diversity scores for assessment of micronutrient intake and food security in developing countries. [unpublished dissertation]. Wageningen: Wageningen University; 2009.

45. Steyn NP, Nel JH, Nantel G, Kennedy G, Labadarios D. Food variety and dietary diversity scores in children: Are they good indicators of dietary adequacy? Public Health Nutrition, 2006;9:644-650.

46. Labadarios D, Steyn NP, Maunder E, MacIntryre U, Gericke G, Swart R, et al. The National Food Consumption Survey (NFCS): South Africa, 1999. Public Health Nutrition 2005;8(5):533-543.

47. Battersby J. Beyond the food desert: Finding ways to speak about urban food insecurity in South Africa. Geografiska Annaler: Series B, Human Geography 2012;94(2):141-159.

48. Kruger HS, Steyn NP, Swart EC, Maunder EM, Nel JH, Moeng L, et al. Overweight among children decreased, but obesity prevalence remained high among women in South Africa, 1999-2005. Public Health Nutrition 2012;15(4):594-599.

49. Department of Agriculture, Forestry and Fisheries. The national policy on food and nutrition security for the republic of South Africa. Government Gazette no. 37915, 22 August; 2014.

50. Rose D, Charlton KE. Quantitative indicators from a food expenditure survey can be used to target the food insecure in South Africa. Journal of Nutrtition 2002;132(11):3235-3242.

51. Madhavan S, Townsend N. The social context of children's nutritional status in rural South Africa. Scandinavian Journal of Public Health Supplements 2007;69:107-117.

52. Schoeman SE, Hendricks MK, Hattingh SP, Benade AJ, Laubscher JA, Dhansay MA. The targeting of nutritionally at-risk children attending a primary health care facility in the Western Cape Province of South Africa. Public Health Nutrition 2006;9(8):1007-1012.

53. Branca F, Ferrari M. Impact of micronutrient deficiencies on growth: the stunting syndrome. Ann Nutr Metab 2002;46 Suppl.1,8-17.

54. Kimani-Murage EW, Norris SA, Pettifor JM, Tollman SM, Klipstein-Grobusch K, Gómez-Olivé XF, et al. Nutritional status and HIV in rural South African children. BMC Pediatrics 2011;11:23.

55. Lemke S, Vorster HH, van Rensburg NS, Ziche J. Empowered women, social networks and the contribution of qualitative research: broadening our understanding of underlying causes for food and nutrition insecurity. Public Health Nutrition 2003;6(8):759-764.

56. Iversen PO, Hoisaether EA, Morseth M, Herselman M. Diverging opinions of supplementation programmes between mothers of small children and staff at primary health clinics in the Western Cape Province of South Africa. Public Health Nutrition 2011;14(5):923-930.

57. Phaswana-Mafuya N. Hygiene status of rural communities in the Eastern Cape of South Africa. International Journal of Environmental Health Research 2006;16(4):289-303.

58. Battersby J. The State of Urban Food Insecurity in Cape Town. Urban Food Security Series No. 11. Queen's University and AFSUN [Online] 2011 [access 2016, January 20]; Available: www.afsun.org/wp-content/uploads/2013/09/AFSUN_11.pdf

59. Department of Health. White paper for the transformation of the health system in South Africa. Notice 667 of 1997 [Online] [s.a.] [access 2015, October 30]; Available: http://www.polity.org.za/polity/govdocs/white_papers/health.html

60. Iversen PO, Marais D, Du Plessis L, Herselman M. Assessing nutrition intervention programmes that addressed malnutrition among young children in South Africa between 1994-2010. African Journal of Food, Agriculture, Nutrition and Development 2012;12(2):5928-5945.

61. Department of Health. Integrated Nutrition Programme. Pretoria: Department of Health; 1995.

62. Department of Health. Roadmap for nutrition in South Africa 2013-2017. Pretoria: Department of Health; 2013.

63. McLaren D, Moyo B, Jeffery J. The Right to Food in South Africa: An analysis of the content, policy effort, resource allocation and enjoyment of the constitutional right to food. Studies in Poverty and Inequality Institute, Working paper 11; 2015.

64. Delaney A, Ismail Z, Graham L, Ramissoon Y. Review of the child support grant: Uses, implementation and obstacles. United Nations Children Fund; 2008.

65. South African Department of Health, Department of Social Development and Department of Planning, Monitoring and Evaluation. Summary evalution report: Diagnostic / implementation evaluation of nutrition interventions for children from conception to age 5. [Online] 2014 [access 2016, January 30]; Available: www.nutritionsociety.co.za/attachments/article/76/Summary-Evaluation-of-Nutritional-Interventions-for-Children-from-Conception-to-Age-5-.pdf

66. DSD, SASSA and UNICEF. The South African child support grant impact assessment: Evidence from a survey of children, adolescents and their households. South Africa: UNICEF [Online] 2012 [access 2015, October 02]; Available: http://www.unicef.org/southafrica/resources_10737.html

67. SAHRC and UNICEF. Poverty traps and social exclusion among children in South Africa. Pretoria: SAHRC [Online] 2014 [access 2015, October 14]; Available: www.unicef.org/southafrica/resources_15005.html

68. Food and Agriculture Organisation. The right to food in practice: Implementation at the national level. Rome: FAO; 2006.

69. London L. What is a human-rights based approach to health and does it matter? Health and Human Rights Journal 2008;10(1):65-80.

70. Statistics South Africa. Community profiles, Census 2011 (SuperWeb Interactive Format) [Online] 2012 [access 2016, January 20]; Available: http://interactive.statssa.gov.za/superweb/loadDatabase.do;jsessionid=0546F5EF12FA884B7085FBAC7FD8B3FC?db=Descriptive11_wd

71. Statistics South Africa. Community Survey [Online] 2007 [access 2016, January 20]; Available: http://www.statssa.gov.za/?page_id=3935

72. Google Maps. Map of Blue Crane Route Municipality [Online] 2016 [access 2016, January 20]; Available: https://www.google.co.za/maps/place/Somerset+East/@-32.8817253,24.9710956,9z/data=!4m2!3m1!1s0x1e7cc8633259b50d:0x98c7679647e3138d

73. Human Sciences Research Council in conjunction with the Department of Agriculture. South African Household Questionnaire "Food Insecurity and Vulnerability Information and Mapping System" [Online] 2005 [access 2016, January 20]; Available: http://www.agis.agric.za/agisweb/FIVIMS_ZA.html

74. Gericke G, Labadorios D, Nel JH. The National Food Consumption Survey Chapter 8: The hunger scale questionnaire. Department of Health, Nutrition Directorate [Online] 1999 [access 2015, September 15]; Available: http://www.sun.ac.za/englsih/faculty/healthsciences/interdisciplinary-health-sciences/Documents/Ch8_Hungerscale_Text.pdf

75. Nutrition and Consumer Protection Division, FAO. Guidelines for measuring household and individual dietary diversity [Online] 2010 [access 2015, October 20]; Available: www.fao.org/fileadmin/user_upload/wa_workshop/docs/FAO-guidelines-dietary-diversity2011.pdf

76. Niewenhuis J. Analysing qualitative data. In Maree K, editor. First steps in Research. Pretoria: Van Schaik; 2007. pp. 101-115.

77. Basiotis PP, Lino M. Food insufficiency and prevalence of overweight among adult women. Nutrition Insights 2002;26:1-2.

78. Temple N, Steyn NP. Food prices and energy density as barriers to healthy food patterns in Cape Town, South Arica. Journal of Hunger Environmental Nutrition 2009;4(2):203-213.

79. Popkin BM. An overview of the nutrition transition and its health implications: The Bellagio meeting. Public Health Nutrition 2002;5(A):93-103.

80. World Health Organisation. Diet, nutrition and the prevention of chronic disease: report of a joint WHO/FAO expert consultation. WHO Technical Report Series 916. Geneva: WHO; 2003.

81. Ruopeng A. Effectiveness of subsidies in promoting healthy food purchases and consumption: a review of field experiments. Public Health Nutrition 2012;16(7):1215-1228.

82. South African Human Rights Commission. Chapter 4: The right to environment. 7th Report on economic and social rights: Millennium development goals and the progressive realisation of economic and social rights in South Africa 2006-2009 [Online] 2010 [access 2015, October 21]; Available: www.sahrc.org.za/home/21/files/7thh ESR Chapter 4-7.pdf

83. United Nations Children's Fund. Improving child nutrition: The achievable imperative for global progress [Online] 2013 [access 2015, October 15]; Available: www.unicef.org/publications/index.html

84. United Nations. Sustainable Development Goals; Goal 6: Ensure access to water and sanitation for all [Online] 2015 [access 2015, October 22]; Available: www.un.org/sustainabledevelopment/water-and-sanitation

85. Food and Agriculture Organisation. Methods to monitor the human right to adequate food: Volume II An overview of approaches and tools. Rome: FAO; 2009 [Online] 2009 [access 2015, October 20]; Available: http://www.fao.org/3/a-i0351e.pdf

86. De Schutter O. Report of the Special Rapporteur on the right to food: Mission to South Africa. United Nations Human Rights Council. General assembly [Online] 2012 [access 2016, January 20]; Available: http://www.srfood.org/en/official-reports

87. National Treasury 2013 Budget review. Chapter 6: Social security and social wage. National Treasury [Online] 2013 [access 2016, January 20]; Available: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0ahUKEwi5yfaLlNjKAhVE7xQKHdkPBqMQFgg3MAQ&url=http%3A%2F%2Fwww.treasury.gov.za%2Fdocuments%2Fnational%2520budget%2F2013%2Freview%2Fchapter%25206.pdf&usg=AFQjCNHD1Km4PbPYdIlEsGayBbeduaAn9w&sig2=4pKT0GxLJHDx4QYAgQBLjg

88. Food and Agriculture Organisation. The right to food: Integrating the right to adequate food in national food and nutrition security policies and programmes. Rome: FAO; 2014 [Online] 2014 [access 2015, October 20]; Available: http://www.fao.org/3/a-i4258e.pdf

89. Aliber M, Hall R. Support for smallholder farmers in South Africa: Challenges of scale and strategy. Development Southern Africa 2012;29(4):548-562.

90. De Schutter O. Report of the Special Rapporteur on the right to food: The transformative potential of the right to food. United Nations Human Rights Council. General assembly [Online] 2014 [access 2016, January 20]; Available: http://www.srfood.org/images/stories/pdf/officialreports/20140310_finalreport_en.pdf

91. Crush J, Hovorka A, Tevera D. Urban Food Production and Household Food Security in Sothern African Cities. Urban Food Security Series No. 4. AFSUN [Online] 2010 [access 2016, January 20]; Available: http://www.afsun.org/wp-content/uploads/2013/09/AFSUN_4.pdf

92. Mukorombindo Y, Coetzee JK. A better life through networks and support? Vulnerable people living in a new human settlement in Grahamstown. Africanus 2013;43(1):49-64.

Addenda

Addendum A: English Key Informant Discussion Guide

Addendum B: English Primary Caregiver Questionnaire Form

Addendum C: English Key Informant Consent Form

Addendum D: Ethics Approval Letter from the Health Research Ethics Committee

Addendum E: Letter of consent from the Eastern Cape Department of Health to conduct the study

Addendum F: English Primary Caregiver Consent Form

Addendum G: Changes made to the Primary Caregiver Questionnaire after the Pilot Study

Addendum H: Letter sent to the Eastern Cape Department of Health to request permission to visit clinics to collect data

Addendum A: English Key Informant Discussion Guide

Key Informant Interview

Participant Code:
_____ -- _____

Title of study: Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

1.1 Gender:	Male	Female	**1.2 Age:**	_____years
1.3 Who is your employer?				
1.4 What is your current job title?				
1.5 How many years have you been in this position?				
1.6 How many years have you been living in this area?				
1.7.1 Do you ever visit farms in the Blue Crane area?			Yes	No
1.7.2 If yes, how often?				
1.7.3 If yes, for what reasons do you visit these farms?				
1.8.1 Do you work with the local community of the Blue Crane area?			Yes	No
1.8.2 If yes, how often?				
1.8.3 If yes, what sort of work do you do you do with them?				

2. In other areas of the country, communities are reported to suffer from hunger. What is the situation regarding hunger in the Blue Crane Route area?

3. We are going to discuss the concepts of food security and the right to food. Can you explain to me what the difference is between the two concepts?
   Who do you think is responsible to ensure food security in this area and to promote the right to food?
(provide correct definitions after answering)

4. What would you say the food security situation is like for children in the Blue Crane Route? Please explain your answer.

5. In your opinion, is there a difference in the food security situation between people, and in particular children, living in town and on farms? Please explain your answer.

6. To your knowledge, what are the things that influence food security in the area?
   Probe: Reasons that prevent food security; and reasons that promote food security

7. What efforts (if any) are you aware of that are being made to improve food security in the area?
   What does the government do to promote food security?
   At the national level?
   At the provincial level?
   What does the local municipality do to promote food security in the area?

8. What policies and programmes are you aware of that promote food security in the area?
   How effective do you think they are? Please explain your answer
   What is your opinion of feeding programmes, specifically those at crèches and pre-primary schools?
   What government grants are you aware of and what is your opinion of the grant system?
   (Prompt: Eg child, foster, disability, old-age)
   In what ways do these grants influence food security in your area, specifically for children?

9. Do you think it is necessary for more to be done to improve food security in the area?
   If so, what should be done to improve food security in the area?
   Who do you think should be responsible for this?
   What do the people themselves do about this?

10. I am going to focus on other aspects of food security now.
    Can you think of any other aspects in the community that influence the food security of the community, and specifically of children?
    Probes:
    How important is the availability of land, education and employment for food security in this community?
    Do you think men and women have equal opportunities to obtain enough food so that they and their children don't go hungry?
    Do you think men and women in the area have the same level of education? Please explain your answer.
    Do you think men and women have equal employment opportunities? Please explain your answer.
    Do you think men and women are paid the same amount for the same jobs? Please explain your answer.
    Do you think men and women have equal land ownership opportunities? Please explain your answer.

11. Are you aware of any programmes that the government has specifically aimed at women and/or children to improve their food security? If so, what programmes are these?
    Probe: How successfully are these programmes being implemented in your community?

12. Do you have any statistics or data available regarding the answers you have given me? YES/NO
    Do you have any documents pertaining to programmes regarding the topic we have discussed? YES/NO
    If yes would you be willing to share this information with me?

13. Is there anything else you would like to mention that may influence the food security of children in this community?

14. Thank you for your time and cooperation

Definitions of food security and the right to food (for key informants):

Food Security:

A person is food secure when he/she always has adequate food to eat. This refers to the person being able to afford adequate food in both quantity and nutritional quality that is safe and fit for human consumption, and is culturally acceptable to the person. The person must be in a position to buy food or grow it himself/herself. A person is not food secure if he/she is ever hungry because he/she cannot afford to buy food, or can only afford food that is of a poor quality and not adequate to meet his/her dietary needs.

Right to adequate food:

A right refers to something that a person is entitled to because he/she is a human being. This means that all human beings are entitled to food regardless of whether or not they are wealthy and have money to buy food. The right to adequate food is met for a person when he/she can afford to buy; or grow food himself/herself and when he/she has physical access to the food (ie he/she has money to buy food and is able to get to the shop to purchase it). For this right to be realised the food must be of an adequate quality and amount to meet the dietary needs of the person, it must be safe to eat and acceptable to eat within the person's culture. The food should be obtained in a sustainable manner that will ensure an on-going supply of appropriate food. By realising this right other human rights of this person or other people should not be negatively affected.

Addendum B: English Primary Caregiver Questionnaire Form

Primary Caregiver Questionnaire

Participant Code:
Rur / Urb _____ -- _____

Title of study: Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape.

SECTION A: Screening Questionnaire for Participation

1. Did you take part in the pilot study at Andries Vosloo Hospital for this study?

a. Yes	*b. No*

2. Do you understand and speak one of the following languages?

a. English	b. Afrikaans	c. isiXhosa	*d. None of them*

3. How old is this child?

a. Between the ages of 1 and 5	*b. Younger than 1 year*	*c. Older than 5 (ie 6 years old or older)*

4. Are you the mother or primary caregiver of this child (does this child live with you)?

a. Yes, mother	b. Yes, primary caregiver (other than mother)	*c. No*

5. Do you have this child's Road to Health Booklet OR clinic book with you?

a. Yes	*b. No*

6. How long have you been living in this area?

a. More than 6 months	*b. 6 months or less*

If the participant complies with questions 1a, 2a/b/c, 3a, 4a/b, 5a and 6a they qualify for participation. If the participant does not comply with the criteria thank them and move on. Obtain informed consent from qualifying participants and proceed with the questionnaire. If a person does not provide consent, thank them and add a participant code, and then move on.

CLARIFICATION OF TERMINOLOGY: Primary Caregiver

A primary caregiver is the person who is mainly responsible for the upbringing and care of the child. The primary caregiver lives with the child. If the mother lives with the child, she is usually the primary caregiver; however, a father, grandparent or guardian can also be a primary caregiver.

SECTION B: Socio-Demographic Questionnaire

1. General:

1.1 Today's date (dd/mm/yr):	_____/_____/2013		
1.2.1 Name of health care facility:	Aeroville	Beatrice Ngwentle	Bongweni
	Gracey	Union	Vera Barford
	Mobile 1	Mobile 2	Mobile 3
1.2.2 If a mobile, specify which route:			
1.3 Where do you live?	In town	On a farm	Other, specify:

1.4 Why is this child at the clinic today?		
Growth monitoring	Immunisation (injection)	Supplementation
Illness (specify)	Other, specify if willing:	

2. Child's information:

2.1 Child's date of birth *(d/m/yr)*:	_____/_____/20____		**2.2 Age of child:**	_____yrs_____m			
2.3 Gender:	Male	Female	**2.4 Race:**	A	C	W	O

2.5 Does this child go to a crèche or pre-primary?			
No, child is at home	Crèche	Pre-primary	Other, specify:

2.6.1 Is it important to you that this child attends school one day and gets a good education?	Yes	No
2.6.2 Please explain why you answered yes or no to the question above:		

3. Caregiver and mother's information:

3.1 What is your age:_____ years									
3.2 Gender:	Male	Female	**3.3 Race:**	A	C	W	O		
3.4 What is your relationship to this child	Mother	Father	Grand-mother	Grand-father	Brother	Sister	Aunt	Uncle	Other, specify
3.5 What is your marital status?	Unmarried	Married	Divorced	Separated	Widowed	Living with partner	Traditional marriage	Other, specify	

3.6.1 What is the highest level of education that you have completed?	No schooling	Grd 0 to Grd 4 (Std 2)	Grd 5 (Std 3) to Grd 7 (Std 5)	Grd 8 (Std 6) to Grd 10 (Std 8)
	Grd 11 (Std 9) to Grd 12 (Std 10 / matric)		Course or certificate for formal training	Diploma or degree

Only ask this question if the mother is not the primary caregiver **3.6.2 What is the highest level of education that the mother has completed?**	No schooling	Grd 0 to Grd 4 (Std 2)	Grd 5 (Std 3) to Grd 7 (Std 5)	Grd 8 (Std 6) to Grd 10 (Std 8)
	Grd 11 (Std 9) to Grd 12 (Std 10 / matric)	Course or certificate for formal training	Diploma or degree	Don't know

3.7 How old was the mother when she had this child?		Don't know
3.8 How many other children does the mother have?		Don't know

4. Household information

4.1 How many people are there in this household? *(people who spend four or more nights/wk in the house)*							
Adults 18 and above:		**Children below 18:**					
4.2 Number of rooms in house *(excluding bathroom, toilet and kitchen, if separate)*							
4.3 Number of people per living/sleeping room (Tick one)	0-2 persons	3-4 persons	More than 4				
4.4 What is the main home language of the household?	Eng	Afr	Xhosa	Other, specify:			
4.5 Who do you regard as the head of this household?	Yourself	Your partner	Grandmother	Grandfather	Other, specify:		
4.6 Does this child's mother live in the house?	Yes	No, mother died	No, mother living/working elsewhere	No, other reason, specify:			
4.7 Does this child's father live in the house?	Yes	No, father died	No, father living/working elsewhere	No, other reason, specify:			
4.8 Type of dwelling: *You can tick more than one block if necessary*	Brick, concrete	Traditional mud	Tin	Plank, wood	Other, specify:		
4.9 Where do you get drinking water most of the time? *(tick one)*	Own tap	Communal tap	River / Dam	Borehole/ well	Other, specify:		
4.10 How far is the water source from your home?	N/A – inside house	_____min walk OR _____meters					
4.11.1 To your knowledge, is the drinking water clean?	Yes	No	Don't know				
4.11.2 If no, who is responsible to provide clean water?							
4.12 What type of toilet does this household have? *(tick one)*	Flush	Pit	Bucket, pot	VIP	Other, specify:		
4.13 What fuel is used for cooking most of the time? *(tick one)*	Electric	Gas	Paraffin	Wood/Coal stove	Sun	Open fire	
4.14 Does the household have any of the following items in working order *(indicate all options)***:**							
4.14.1 Refrigerator/freezer	Refrigerator	Freezer	Both	Neither			
4.14.2 Stove	Yes / No	If yes, choose one: Gas / Coal / Electric / Paraffin			If yes, choose one: With oven / Without oven		
4.14.3 Microwave	Yes	No					
4.14.4 Radio or television	Radio	Television	Both	Neither			
4.15 Where do you store your perishable food (food that can go "off") at home?							
In the kitchen, at room temperature	In own fridge/freezer	In neighbour's fridge/freezer	Other, specify				

5. Household income:

5.1 How many adults in the household don't work?				
5.2 What are the reasons that they don't work?				
5.3.1 Do men and women have equal employment opportunities? (ie do they get jobs as easily as each other)	**Yes**	**No, men get jobs more easily**	**No, women get jobs more easily**	**Don't know**
5.3.2 Please explain your answer to 5.3.1 above				
5.3.3 Do men and women get paid the same amounts for the same type of work?	**Yes**	**No, men get paid more**	**No, women get paid more**	**Don't know**
5.3.4 Please explain your answer to 5.3.3 above				

5.4 Total household income per month (including wages, rent, sale of produce, state grants, etc)	None	R100-R500	R500-R1000	R1000-R3000	R3000-R5000	Over R5000	Don't know	
5.5 How much money is spent on food weekly?	R0-R50	R50-R100	R100-R150	R150-R200	R200-R250	R250-R300	R300-R350	R350-R400	Over R400	Don't know

5.6 In the past month did your household receive an income from any of the following sources? *(Reassure participant of confidentiality when asking these questions)*	**YES**	**NO**	**Don't know**	**How much income was received in the last month?**	**Are these regular monthly incomes?**	
					YES	**NO**
a. Work (eg salary, own business, livestock sales, crop sales, non-agricultural activities etc)				R		
b. Remittance from family living elsewhere				R		
c. Pension fund from government				R		
d. Pension fund from work				R		
e. Disability grant from government				R		
f. Compensation fund (for injury or illness at work)-UIF				R		
g. State maintenance grant/child support grant (all pay)				R		
h. Care dependency (single care) grant				R		
i. Foster care grant				R		
j. Selling of assets such as plough, stock, sewing machine, furniture, TV, radio, phone etc				R		
k. Gifts received in kind				R		
l. Other, specify:				R		
m. No income at all						

SECTION C: Food Security

1. Assessment of food security status:

1.1 Think about the meals you ate yesterday, including meals eaten outside of the house.						
How many meals did you eat yesterday?		How many meals did this child eat yesterday?				
1.2 Does this child get free food through a feeding scheme? (at crèche / pre-primary etc.)	Yes, daily	Yes, but less often than every day	Yes, but not often (eg some weeks every day, but other weeks not at all)	No, he/she does not attend crèche/pre-primary	No, but he/she does attend crèche/pre-primary	Don't know

1.3.1 Is the food that this child eats at home the same as the rest of the family's food?	Yes	No	Don't know
1.3.2 If you answered "no" to 1.3.1 then how does the child's food differ from the family's food? *Is the quantity more/less?* *Is there more/less variety in the types of foods?*			
1.4.1 When you dish up food for the family, when does this child's food get dished up?	First	Last	No specific order
1.4.2 When you dish up food for the family, when do you dish up your own food?	First	Last	No specific order

1.5 You are now going to be asked eight questions on food that is available in your household. All you have to do is answer YES or NO to each of these questions.	**Has it happened in the past 30 days?**		**Has it happened 5 or more days in the past 30 days?**	
	YES	**NO**	**YES**	**NO**
a. Does your household ever run out of money to buy food?				
b. Do you ever rely on a limited number of foods to feed your children because you are running out of money to buy food for a meal?				
c. Do you ever cut the size of meals or skip any because there is not enough food in the house?				
d. Do you ever eat less than you should because there is not enough money for food?				
e. Do your children ever eat less than you feel they should because there is not enough money for food?				
f. Do your children ever say they are hungry because there is not enough food in the house?				
g. Do you ever cut the size of your children's meals or do they ever skip meals because there is not enough money to buy food?				
h. Do any of your children ever go to bed hungry because there is not enough money to buy food?				

1.6 Did you and your child eat or drink products from the following food groups yesterday?					
Food group	**Examples**	**Child**		**1˚Care-giver**	
		YES	**NO**	**YES**	**NO**
a. Starches	Grains and tubers: samp, mielie meal, other maize products, sorghum, wheat, bread, rice, pasta, potatoes, oats etc.				
b. Meat, fish and eggs	Fresh fish, canned fish, beef, chicken, pork, tripe, animal feet, other meat products etc.				
c. Vegetables	Carrots, lettuce, spinach, pumpkin, butternut, gem squash, dark leafy vegetables, pumpkin leaves, yellow vegetables, peppers, tomato, fresh beans, fresh peas, cabbage, cauliflower, mushrooms, onions etc.				
d. Fruit	Mango, peaches, apricot, yellow fruits, pawpaw, oranges, naartijes, grape fruit, grapes, lemon, plums, prickly pear, wild berries, raspberries, strawberries, bananas, apples etc.				
e. Beans, nuts and seeds	Dried beans, dried peas, soya, sugar beans, cowpeas, split peas, peanuts, pumpkin seeds, sesame seeds, sunflower seeds, cashew nuts etc.				
f. Dairy	Milk, amasi, mageu, cheese, yoghurt etc.				
g. Sugars	Sugar, syrup, sweets, honey etc.				
h. Oils	Oil, margarine, butter, peanut butter, avocado pear etc.				
i. Beverages	Tea, coffee, cool drink, fruit juice, etc.				
j. Alcohol	Beer, maize beer, wine, spirits, pap-sak etc.				

1.7 Which months of this year were months in which you experienced a period of shortage of food or money such that one or more members of the household had to go hungry? (Y/N)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No	No	No	No	No	No	No	No	No	No	No	No

2. Coping strategies used to improve food security:

2.1.1 Does your household have access to the following for keeping and producing livestock, fish, planting of grains, vegetables, or fruits etc?	**YES**	**NO**
Garden/small plot		
Field for cultivation		
Grazing land		
Water for irrigation		
Market place/shop to sell produce/stock to		
Market place/shop to buy materials/supplies for cultivation and keeping stock		

2.1.2 Does your household grow vegetables/crops or keep livestock?			
No	Yes, grow vegetables/crops	Yes, keep livestock	Yes, grow vegetables / crops and keep livestock

2.2 Does your household or a household member own or rent the land you live on?		
Owned and fully paid off (Title Deed)	Owned and situated on tribal land	Owned and received through government housing subsidy
Owned, buy not yet fully paid off (eg with a mortgage)	Rented	Rent-free as part of employment contract of family member
Rent-free not as part of employment contract of family member	Squatting	Farmer's land
Other, specify:		

2.3.1 Do any of the females in your family own land?	Yes	No	Don't know
2.3.2 Would the females in your family be able to buy land if they wanted to?	Yes	No	Don't know
2.3.3 If a female in your family wanted to buy land would they be able to get a loan from the bank?	Yes	No	Don't know

Only ask 2.4 and 2.5 if applicable, if answer to 2.1 was affirmative

2.4 If all the land you live on is not used intensively for food production, why not? (more than 1 option may be chosen)	*Lack of seeds*	*Lack of fertiliser*	*Lack of water*	*Lack of labour*	*Pests*
	Rented out	*Too old/young or weak*	*Too little money*	*Not interested*	*Lack of knowledge*
	Buy food, no need to grow it	*Land too big*	*Other, specify:*		

2.5 What is the main purpose that you grow produce/keep stock?	*Not applicable*	*For consumption/ eating*	*Retain for future production (eg seeds)*	*To sell*	*Exchange*	*Give away*
	Other, specify:					

	2.6 Did any of the following occur at any time in the last year? Tick the appropriate boxes	**NA**	**No**	**Yes**	**If yes, how many months of the past year did this happen?**
a	*Had to buy staples eg maize instead of growing all*				
b	*Ate food we grew ourselves*				
c	*Borrowed food / received food from others*				
d	*Purchased food on credit from shop, e.g. spaza shop*				
e	*Borrowed money from employer to purchase food*				
f	*Took loan out from financial company to buy food*				
g	*Had to eat wild food through hunting / gathering*				
h	*Begged for food*				
i	*Had to work for food in kind*				
j	*Received food as a gift, eg from neighbours or family*				
k	*Received food parcel / nutritional supplements from clinic/dietitian/hospice etc*				

2.7 What sort of shops do you most often buy your food from?

Supermarket	Spaza/corner shop	Farm shop	Other, specify

2.8 How do you pay for your food most often?

Cash or debit card	On credit/account	Borrow money from family/friends	Other, specify

2.9 How do you get to the shops most often?

Walk	Taxi	Hitch-hike	Own car	Other, specify

2.10 How far do you have to travel to these shops	……km or ……..hours or ……min

2.11.1 Have you seen this logo (picture) before? **Do you know what this logo (picture) means? If so, what does it mean?**  		
2.11.2 Do you look for this logo (picture) on foods when buying them?	Yes	No

SECTION D: Primary caregivers' perceptions of what can be done to improve the realisation of the right to food of children aged 1-5 years

1. Is there anything else, which we haven't spoken about yet, that you think **you** can do to ensure that this child always has enough food to eat?
2. Besides yourself, who else do you think can help to ensure that you and this child have enough food to eat? *(Probe: Why those people?)*
3. What do you think these other people can do to ensure that you and this child have enough food to eat?
4. Do you think that the government should do something to ensure that you and this child have enough food to eat? *(Probe: Why do you think so?)*
5. What do you think the government can do to ensure that you and this child have enough food to eat?
6. Is there anything else that you can tell me about the situation in this community that might have an influence on the food that is available?
7.1 Have you ever heard of human rights? YES / NO
7.2 *If yes to 7.1:* Is it a human right to have adequate food? YES / NO

Addendum C: English Key Informant Consent Form

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

Participant Code:

_____ -- _____

TITLE OF THE RESEARCH PROJECT:

Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

REFERENCE NUMBER: S13/05/095

PRINCIPAL INVESTIGATOR: TC Jenkings

ADDRESS:

Dietetics Department
3rd Floor, Andries Vosloo Hospital
Somerset East
5850

CONTACT NUMBER: 084 782 9035 or 042 243 1313

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- This study aims to investigate the food security situation of children and their families living both in town and on farms in the Blue Crane Route. Problems regarding food security and coping strategies used to address food insecurity will be discussed.
- This study will be conducted today, here, and will take approximately 1 hour to complete. Nine other key informants have also been asked to participate in this study.

Why have you been invited to participate?

- You have been chosen to participate in this study as you have been identified as a key role player in the community who is involved in nutrition, food security, health or governance and who has valuable insight into the research topic.

What will your responsibilities be?

- Your responsibility will be to answer all questions truthfully, and as accurately as you can. Your consent is required to make a voice recording of the interview. There are no further responsibilities.

Will you benefit from taking part in this research?

- You will not benefit directly from this research, but the information obtained from this study will be beneficial to the healthcare workers and the municipality in the area, to enhance the understanding of the factors that impact negatively on the food security of this community.

Are there any risks involved in your taking part in this research?

- No, there are no risks involved in taking part in this study. The voice recordings will be password protected and destroyed after transcription. Only the researcher will have access to the recording and the transcribed text.

If you do not agree to take part, what alternatives do you have?

- You will not be negatively affected in any way if you choose not to participate in the study; you can simply opt not to participate.

What will happen in the unlikely event of some form injury occurring as a direct result of your taking part in this research study?

- This study only consists of an interview, and thus no injury can occur as a direct result of you taking part in the study.

Will you be paid to take part in this study and are there any costs involved?

- No, you will not be paid to take part in the study. There will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- You can contact Tammy Jenkings at 042 243 1313 if you have any further queries or encounter any problems.
- You can contact the Health Research Ethics Committee at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your interviewer.
- You will receive a copy of this information and consent form for your own records.

Informed consent for the taping of the interview

I understand that this interview will be voice recorded to enable the researcher to accurately transcribe the interview. It has been explained to me that the recordings and all electronic documents will be stored safely and destroyed after six months of completion of the research. I was given the opportunity to ask questions and all queries were explained to my satisfaction. I have been given a copy of the consent form.

…….. ……...
Participant name (Printed) Date of birth

....
Signature of participant **Date**

Declaration by participant

By signing below, I ……..……. agree to take part in a research study entitled "Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape"

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) .....……..…….. on (*date*) ……...…….. 2014.

....
Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.)*

Signed at (*place*) .....…….…….. on (*date*) ……...…….. 2014.

....
Signature of investigator **Signature of witness**

Declaration by interpreter

I *(name)* ……..…… declare that:

- I assisted the investigator (*name*) ……. to explain the information in this document to (*name of participant*) ……..…….. using the language medium of isiXhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....…….…….. on (*date*) ……...……2014

....
Signature of interpreter **Signature of witness**

Addendum D: Ethics Approval Letter from the Health Research Ethics Committee

Ethics Letter

12-Oct-2015

Ethics Reference #: S13/05/095
Title: Determinants of the realisation of the right to adequate food of children (1-5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

Dear Miss Tamryn Jenkings,

The Health Research Ethics Committee approved the following progress report:

Progress Report Period 03/09/2014 to 25/08/2015

Approval date: 12 October 2015 Expiry Date: 11 October 2016

If you have any queries or need further help, please contact the REC Office 0219399657.

Sincerely,

REC Coordinator
Franklin Weber
Health Research Ethics Committee 1

Addendum E: Letter of Consent to conduct the study from the Eastern Cape Department of Health

Eastern Cape Department of Health

Enquiries:	Zonwabele Merile	Tel No:	040 608 0830
Date:	31st July 2013	Fax No:	043 642 1409
e-mail address:	zonwabele.merile@impilo.ecprov.gov.za		

Dear Ms T Jenkings

Re: Determinants of the realization of the right to adequate food of children (1-5 yrs old) and their primary care givers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

The Department of Health would like to inform you that your application for conducting a research on the abovementioned topic has been approved based on the following conditions:

1. During your study, you will follow the submitted protocol with ethical approval and can only deviate from it after having a written approval from the Department of Health in writing.
2. You are advised to ensure, observe and respect the rights and culture of your research participants and maintain confidentiality of their identities and shall remove or not collect any information which can be used to link the participants.
3. The Department of Health expects you to provide a progress on your study every 3 months (from date you received this letter) in writing.
4. At the end of your study, you will be expected to send a full written report with your findings and implementable recommendations to the Epidemiological Research & Surveillance Management. You may be invited to the department to come and present your research findings with your implementable recommendations.
5. Your results on the Eastern Cape will not be presented anywhere unless you have shared them with the Department of Health as indicated above.

Your compliance in this regard will be highly appreciated.

DEPUTY DIRECTOR: EPIDEMIOLOGICAL RESEARCH & SURVEILLANCE MANAGEMENT

Addendum F: English Primary Caregiver Consent Form

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

Participant Code:
Rur / Urb _____ -- _____

TITLE OF THE RESEARCH PROJECT:

Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape

REFERENCE NUMBER: S13/05/095

PRINCIPAL INVESTIGATOR: TC Jenkings

ADDRESS:

Dietetics Department
3rd Floor, Andries Vosloo Hospital
Somerset East
5850

CONTACT NUMBER: 042 243 1313

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- This study plans to look at whether or not children and their families living both in town and on farms in the Blue Crane Route have enough food to eat. Problems regarding the amount of food people have and how they use the food that they have will be looked at. We will use a questionnaire to ask information about yourself and your child.
- We will conduct this study today, here at the clinic and it will be in the form of a questionnaire which will take about 30 minutes to complete. People at other places will also be included in this study; the other clinics in the Blue Crane Route as well as the mobile clinics will be visited; where at least another 118 people will be interviewed.

Why have you been invited to participate?

- You have been chosen to participate in this study as you are at the clinic today and the child with you is between 1 and 5 years old. We also believe you will be able to provide us with some important information about how much food is available in your community.

What will your responsibilities be?

- We would like you to answer all questions truthfully, and as accurately as you can. There are no further responsibilities.

Will you benefit from taking part in this research?

- You will not benefit directly from this research, but the information obtained from this study will be used to better understand the availability of food in this area.

Are there any risks involved in your taking part in this research?

- No, there are no risks involved in taking part in this study.

If you do not agree to take part, what alternatives do you have?

- You will not be negatively affected in any way if you choose not to participate in the study; you can simply choose not to participate.

Who will have access to your information?

- Only the researcher will know what you answered. She will not tell anybody else about it. Your name will not be mentioned.

What will happen in the unlikely event of some form of injury occurring as a direct result of your taking part in this research study?

- This study only consists of a questionnaire, and because of this no injury can occur as a direct result of you taking part in the study.

Will you be paid to take part in this study and are there any costs involved?

- No, you will not be paid to take part in the study. There will be no costs involved for you, if you do take part. Taking part in this research study is done out of your own goodwill. You are helping us to get answers to problems that might be for the good of you and the people living around you.

Is there anything else that you should know or do?

- You can contact Tammy Jenkings at 042 243 1313 if you have any further queries or encounter any problems.
- You can contact the Health Research Ethics Committee at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your interviewer.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I ……..……. agree to take part in a research study entitled "Determinants of the realisation of the right to adequate food of children (1 – 5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape"

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) .....…..……. on (*date*) ……...…….. 2013.

....
Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.)*

Signed at (*place*) .....…..……. on (*date*) ……...…….. 2013.

....
Signature of investigator **Signature of witness**

Declaration by interpreter

I *(name)* ……..…… declare that:

- I assisted the investigator (*name*) …… to explain the information in this document to (*name of participant*) ……..…….. using the language medium of isiXhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....…..…….. on (*date*) ……...……..…2013

....

Signature of interpreter **Signature of witness**

Addendum G: Changes to the Primary Caregiver Questionnaire after the Pilot Study

Changes made to the primary caregiver questionnaire after the pilot study

- Page numbers where added at the bottom of each page, for ease of following the questionnaire when asking questions and when capturing data
- Two mistakes were identified in the data capturing spread sheet.
    - In section B it was noticed that question 4.10 was incorrectly numbered as question 4.1. This was corrected.
    - In section B it was noticed that space was only given to fill in one answer, however, participants are allowed to choose more than one answer. This was rectified so that more than one answer may be chosen.
- In section C above question 2.4 it incorrectly says "Only ask 2.4 to 2.6 if applicable"; this should have been "only ask 2.4 and 2.5 if applicable" – this was rectified

Question no	What was changed	Which questionnaires	Reason for change
		Section B	
3.6.1	Grades were changed to numbers ; rather than being written out in full	isiXhosa (English and Afrikaans questionnaires are already like this)	It makes it easier to read and fill in whilst administering the questionnaire, and also makes data capturing easier
3.6.2	Grades were changed to numbers ; rather than being written out in full	isiXhosa (English and Afrikaans questionnaires are already like this)	It makes it easier to read and fill in whilst administering the questionnaire, and also makes data capturing easier
5.4	Amounts were changed to numbers ; rather than being written out in full	isiXhosa (English and Afrikaans questionnaires are already like this)	It makes it easier to read and fill in whilst administering the questionnaire, and also makes data capturing easier
5.5	Amounts were changed to numbers ; rather than being written out in full	isiXhosa (English and Afrikaans questionnaires are already like this)	It makes it easier to read and fill in whilst administering the questionnaire, and also makes data capturing easier
5.6	Each question was labelled a, b, c, d etc (previously weren't numbered)	English, Afrikaans and isiXhosa	This will make data capturing easier, particularly for the isiXhosa questionnaire as the primary researcher (who is capturing the data) cannot read isiXhosa
		Section C	
1.5	Each question was labelled a, b, c, d etc (previously weren't numbered)	English, Afrikaans and isiXhosa	This will make data capturing easier, particularly for the isiXhosa questionnaire as the primary researcher (who is capturing the data) cannot read isiXhosa
1.6. (i)	The word "water" was removed from the list of beverages	English, Afrikaans and isiXhosa	It does not make sense to have water in the list of beverages, as this is not something that one goes out to buy, most people have access to it all of the time

Additional questions added to the questionnaire:
In Section C after 2.1 another question was added: (2.1 was changed to 2.1.1)

2.1.2 Does your household grow vegetables/crops or keep livestock?			
No	Yes, grow vegetables/crops	Yes, keep livestock	Yes, grow vegetables/crops and keep livestock

In Section C question 2.6 was not answered well during the pilot study and because of this was restructured. Participants were unable to identify which months of the past year the activity had occurred, even if they knew it had. There was also no space for "not applicable" despite some of the questions not being applicable if the participant did not have a vegetable garden.

It was changed as follows:

	2.6 Did any of the following occur at any time in the last year? Tick the appropriate boxes	**NA**	**No**	**Yes**	**If yes, how many months of the past year did this happen?**
a	*Had to buy staples eg maize instead of growing all*				
b	*Ate food we grew ourselves*				
c	*Borrowed food / received food from others*				
d	*Purchased food on credit from shop, e.g. spaza shop*				
e	*Borrowed money from employer to purchase food*				
f	*Took loan out from financial company to buy food*				
g	*Had to eat wild food through hunting / gathering*				
h	*Begged for food*				
i	*Had to work for food in kind*				
j	*Received food as a gift, eg from neighbours or family*				
k	*Received food parcel / nutritional supplements from clinic/dietitian/hospice etc*				

Addendum H: Letter to the Eastern Cape Department of Health to request permission to visit clinics to collect data

UNIVERSITY OF STELLENBOSCH
Faculty of Health Sciences

DEPARTMENT OF HEALTH: EASTERN CAPE PROVINCE
ANDRIES VOSLOO HOSPITAL
DIETETIC SERVICES

09 March 2013

To Whom It May Concern

REQUEST FOR PERMISSION FROM THE EASTERN CAPE DEPARTMENT OF HEALTH TO CONDUCT THE STUDY: "Determinants of the realisation of the right to adequate food of children (1 -5 years old) and their primary caregivers living in rural and urban areas in one region of the Cacadu District in the Eastern Cape"

I am currently working for the Eastern Cape Department of Health at Andries Vosloo Hospital in Somerset East as a dietitian (head of department). I am also busy (part-time) with my Master of Nutrition through the Faculty of Medicine and Health Sciences at Stellenbosch University. I intend conducting the above mentioned study at the clinics in the Blue Crane Route Local Municipality Region during July to November 2013.

No study investigating this study topic has been conducted in this region before. This study will be beneficial in terms of gathering new data about the realisation of the right to adequate food of the population living in the Blue Crane Route. The findings of the study will be made available to health care professionals working in the Cacadu district of the Eastern Cape, including the staff at Andries Vosloo Hospital, the staff at the clinics and the staff at the mobile clinics in the area as well as the manager of the Integrated Nutrition Programme in the area. The local municipality will also receive a copy of the study results. The aim of providing these results to health care professionals and municipality staff are so that they can contribute towards an improvement of the realisation of the right to adequate food in the Blue Crane Route district.

I have already received ethics approval from the Health Research Ethics Committee of Stellenbosch University, project number (*insert once obtained*). I am thus requesting approval from the Eastern Cape Department of Health to visit and conduct my study at the clinics in the Blue Crane Route. This will include visits to the 6 clinics in the area (Aeroville Clinic, Beatrice Ngwentle Clinic, Bongweni Clinic, Gracey Clinic, Union Clinic and Vera Barford Clinic) as well as the 4 mobile clinics (mobile 1, 2, 3 and 4) in the area. All the relevant clinics and mobile clinics will be contacted a month before data collection to arrange suitable dates and times for conducting the research.

The study will be conducted by means of a structured interview. All individuals with children at the clinics (and mobile clinics) will be approached to take part in the study. Only willing participants will be asked to complete the researcher administrated questionnaire. Written consent will be obtained from those partaking in the study before commencing with the questionnaire. The interview will be conducted in English, Afrikaans or isiXhosa, depending on the preference of the study participant. The researchers are fluent in English and Afrikaans, and we will bring along our own interpreters to help conduct the isiXhosa interviews.

The intention is to conduct the interviews in the waiting room of the respective clinics. We do not require any services from the clinics. Our presence will not interfere with the services of the clinic in any way and we do not require the time and effort of any staff members. The results of the study will not reflect negatively on the various clinics as this study is assessing various aspects related to the realisation of the right to adequate food of people living in the Blue Crane Route and not the services provided at the clinics.

Participants will not be kept waiting unnecessarily and will not be kept from meeting their appointments. The questionnaire will take approximately 30 minutes to complete and participants will be free to withdraw at any moment. The questionnaire includes questions about food security and the realisation of the right to adequate food. Participants will be weighed and measured.

I thank you for considering my request. Please respond to this request as soon as possible as I urgently need approval before commencing the study in July 2013.

Regards,

T. Jenkings

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